

COUNCIL DIRECTIVE

of 17 September 1984

on the approximation of the laws of the Member States relating to electrically operated lifts

(84/529/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAS ADOPTED THIS DIRECTIVE:

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

Having regard to the opinion of the European Parliament ⁽²⁾,

Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

Whereas in the Member States the construction and inspection of electrically operated lifts are subject to mandatory provisions which differ from one Member State to another and consequently hinder trade in such lifts; whereas it is therefore necessary to approximate these provisions;

Whereas the rules concerning installation, the tests carried out at the time of inspection before entry into service and the performance checks on these appliances affect their manufacture; whereas such rules differ from one Member State to another and must therefore also be harmonized;

Whereas Council Directive 84/528/EEC of 17 September 1984 on the approximation of the laws of the Member States relating to common provisions for lifting and mechanical handling appliances ⁽⁴⁾ has laid down in particular the procedures for EEC type-examination and EEC inspection for these appliances; whereas, according to that Directive, it is necessary to lay down the technical requirements which electrically operated lifts and their essential components (locking devices, landing doors, overspeed governors, safety gears, hydraulic buffers) must satisfy in order to be freely imported, marketed and used after having undergone the requisite inspections and bearing accordingly the required marks and signs,

Article 1

1. This Directive shall apply to permanently installed electrically operated hoisting appliances serving specific levels, having a car designed for the transport of persons or of persons and goods, suspended by ropes or chains and moving at least partially between guides which are vertical or inclined at an angle of less than 15° to the vertical, hereinafter referred to as 'lifts'.

2. This Directive shall not apply to:

- lifts specially designed for military or research purposes, or those used as equipment on ships, on offshore prospecting and drilling rigs, in mines or for the handling of radioactive materials,
- lifts intended exclusively for the transport of goods,
- passenger, goods or service lifts not driven by an electric motor, appliances actuated by fluids (such as oil and hydraulic lifts), or any of the following hoisting appliances: paternosters, rack-and-pinion elevators, screw-driven elevators, theatre elevators, loading appliances, skips, lifts and goods hoists on building or public works sites, construction or maintenance equipment and lifts specially constructed for transporting the handicapped.

Article 2

1. Without prejudice to Article 3, no Member State may, on grounds relating to the requirements of this Directive, refuse, prohibit, or restrict the installation and entry into service of lifts which satisfy the requirements of this Directive and of Directive 84/528/EEC. In Member States where acceptance inspections are required before a lift can be put into service, their conformity with Community provisions shall be established by means of checks and tests carried out in accordance with the provisions of this Directive and of Directive 84/528/EEC.

⁽¹⁾ OJ No C 221, 29. 9. 1975, p. 1.

⁽²⁾ OJ No C 7, 12. 1. 1976, p. 37.

⁽³⁾ OJ No C 131, 12. 6. 1976, p. 31.

⁽⁴⁾ See page 72 of this Official Journal.

The latter Member States shall nominate, in accordance with their national provisions, the bodies competent to undertake such tests and inspections.

2. Neither Community nor national measures concerning the construction of buildings, and in particular fire protection, shall be affected save where they fall within the scope of the requirements of this Directive in this respect.

3. Where a Member State requires authorization prior to installation, examination of the request for authorization shall be conducted in accordance with the requirements of this Directive.

4. Examinations and tests carried out periodically as part of lift servicing or following an extensive modification shall be conducted in accordance with national provisions; as regards lifts covered by this Directive, these examinations and tests may not be more stringent than those laid down in the Annex.

Article 3

1. The lift components set out in Annex II shall be submitted to EEC type-examination and EEC inspection in accordance with Directive 84/528/EEC on the approximation of the laws of the Member States relating to common provisions for lifting and mechanical handling appliances.

2. No Member State may refuse, prohibit or restrict the placing on the market or the use for construction or installation of these lift components, if they conform to the type examined, bear the EEC type-examination sign and are accompanied by a certificate of conformity made out by the manufacturer which is in conformity with the model shown in Annex IV to Directive 84/528/EEC.

3. The EEC type-examination certificate which confirms that a type of component satisfies Community requirements shall be valid for a period of 10 years and may be renewed, on request, for 10-year periods.

Article 4

Member States shall take all necessary measures to ensure that construction components can be subjected to EEC type-examination and that the EEC type-examination certificate referred to in Article 3, the model for which is contained in Annex III, is granted where these components satisfy the technical requirements in Annex I.

Article 5

Any amendments necessary to adapt the Annexes to this Directive to technical progress shall be adopted in accordance with Article 22 of Directive 84/528/EEC.

Article 6

1. Member States shall bring into force the laws, regulations and administrative provisions needed in order to comply with this Directive on the expiry of a period of 24 months from its notification ⁽¹⁾. They shall immediately inform the Commission thereof.

2. Member States shall ensure that the texts of the provisions of national law which they adopt in the field covered by this Directive are communicated to the Commission.

Article 7

This Directive is addressed to the Member States.

Done at Brussels, 17 September 1984.

For the Council

The President

P. BARRY

⁽¹⁾ This Directive was notified to the Member States on 26 September 1984.

ANNEX I

TECHNICAL REQUIREMENTS

1. The appliances referred to in Article 1 (1) must, with the exception of the sections referred to in paragraph 2 below, comply with Standard EN 81-1 (14 October 1977 edition) for electrically powered lifts, as adopted by the European Committee for Standardization (CEN).

2. This standard shall apply subject to the following modifications:

— Section 2.

The reference to HD 25, HD 223 and HD 224 is to be replaced by a reference to HD 384, point 2;

— Section 5.7.1. *Top clearances for traction drive and positive drive lifts*

Amend as follows:

'5.7.1.1. When the counter-weight rests on its fully compressed buffer, the following four conditions shall be satisfied at the same time:

- (a) the guided travel of the car, still possible in the upward direction, shall be ... (no change);
- (b) the free height above the area referred to in 8.13.1 (b) shall be at least ... (no change);
- (c) the free distance between the lowest parts of the roof of the well and:
 - 1. ... (no change),
 - 2. ... (no change);
- (d) the space above the car must be sufficient to accommodate a rectangular block not less than 0,5 × 0,6 × 0,8 m resting on one of its faces.

5.7.2.2. When the upper buffers ... (no change):

- (a) the free distance above the area referred to in 8.13.1 (b) shall not be less than 1 m;
- (b) the free distance between the lowest part of the roof of the well ... (no change);
- (c) the space above the car must be sufficient to accommodate a rectangular block not less than 0,5 × 0,6 × 0,8 m resting on one of its faces.;

— Section 5.7.3.3.

The dimensions laid down in paragraph (a) are to be replaced by the following:

'0,5 × 0,6 × 1 m';

— Section 6.2.1.

Access from the public way to the interior of the machine and pulley rooms must:

- (a) be capable of being properly lit by (a) permanent electric light fixture(s),
- (b) be easy to use in complete safety in all circumstances and without necessitating entry into private premises.

The access ways to the machine rooms and the entrances themselves must be of a minimum height of 1,8 m. (Thresholds and flanges which do not project beyond 0,4 m are not taken into consideration) (N c);

— Section 6.3.2.1.

Amend the second paragraph as follows:

'In particular there shall be provided:

- (a) a clear horizontal area in front of panels and cabinets. This area is defined as follows (N c):
 - depth, measured from the external surface of the enclosures, at least 700 mm. This distance may be reduced to 600 mm in front of protruding controls (handles, etc.);

- width: the bigger of the following two values:
 - 500 mm or
 - full width of the cabinet or panel;
- (b) (no change).';

- Sections 7.1.1 and 8.6.3.
Replace '10 mm' by '6 mm'. However, the second sentence of section 0.1.2.2 does not apply to this new value;

- Section 8.2. **Internal area of the car**
At the bottom of table 1, replace the last three lines by the following:
'If the rated load exceeds that indicated in the table for the area of the car, the maximum number of persons must correspond to the actual available area of the car.';

- Section 8.13.1.
Add the following requirement:
'The car roof must be so designed as to permit the installation of a balustrade. Member States may lay down that, in their territory, installation of a balustrade on the car roof is compulsory.';

- Section 9.1.2 (c)
Replace by the following:
'The other characteristics (construction, extension, ovality, flexibility tests ...) must at least correspond to those laid down in the relevant ISO international standards. If no such standards exist, the national standards and requirements of the Member State where a lift is installed must be complied with when lifts are being installed.';

- Section 10.5.3.1 (b) 2.
Replace by the following:
'2. open by an electrical safety device (14.1.2) the circuit directly supplying the coils of two contactors, the contacts of which are in series in the circuits supplying the motor and brake. Each of the contactors shall be capable of breaking the circuit under load.';

- Section 11. **CLEARANCE BETWEEN CAR AND WALLS AND BETWEEN CAR AND COUNTERWEIGHT**

- Section 11.2. **Clearance between car and wall in the case of lift cars with doors**
(no change);

- Section 11.3. **Clearance between car and wall in the case of lift cars without doors**
(no change);
Add the following new subsection:
'11.4. **Clearance between car and counterweight**
The car and associated components shall be at a distance of at least 0,05 m from the counterweight (if there is one) and associated components.';

- Section 12.4.2.1.
Add the following:
'All the mechanical components of the brake which take part in the application of the braking action on the drum or disc must be installed in two sets and be of dimensions such that if one of the components were not working on the brake drum or disc a sufficient braking effect to slow down the car when containing the allowable load would continue to be exercised. However, for five years as from the entry into force of this Directive, Member States shall remain free to decide whether or not to impose this requirements.';

— Section 13.1.1.2.

Replace by the following:

'National regulations relating to electricity supply circuit shall apply as far as the input terminals of the switches referred to in 13.1.1.1. They shall apply to the whole lighting circuit of the machine room, the pulley room and the well and pit.';

— Section 13.1.1.3.

Inasmuch as Standard EN 81-1 contains no special provisions for components of the electrical installations for lifts, Directive 73/23/EEC shall apply to them;

— Section 13.1.1.4.

Replace by the following:

'The electrical installations for lifts must:

- (a) comply with the requirements stated in the Cenelec harmonized documents accepted by the national electro-technical committees of the EEC Member States;
- (b) where no harmonized documents on electrical installations as referred to in (a) exist, comply with the requirements of the national rules of the country in which the lift is installed.';

— Section 13.1.2.

Replace by the following:

'In the machine and pulley rooms protection against direct contact by means of casings providing a degree of protection of at least IP 1 X is necessary.';

— Section 13.2.1.3.

Amend as follows:

'Both for the main contactors referred to in 13.2.1.1 and for the relay contactors referred to in 13.2.1.2, it may be assumed in the measures taken to comply with 14.1.1.1 that:'

... (remainder unchanged);

— Section 13.3.

Replace by the following:

13.3.1. Motors directly connected to the mains shall be protected against short-circuiting.

13.3.2. Motors directly connected to the mains shall be protected against overloads by means of manual reset (except as provided for in 13.3.3) automatic circuit-breakers which shall cut off the supply to the motor in all live conductors.

13.3.3. When the detection of overloads operates on the basis of temperature increases in the windings of the motor, the circuit-breaker may be closed automatically after sufficient cooling down has taken place.

13.3.4. The provisions of 13.3.2 and 13.3.3 apply to each winding if the motor has windings supplied by different circuits.

13.3.5. When the lifting motors are supplied by d.c. generators driven by motors, the lifting motors shall also be protected against overloads.';

— Section 13.5.3.5.

Add at the end:

'or shall terminate in a suitably constructed gland.';

— Section 13.5.4.

Replace by the following:

'Connectors and devices of the plug-in type placed in safety device circuits shall be so designed and arranged that if their withdrawal does not require the use of a tool it is impossible to reinsert the plug incorrectly.'

— Section 13.6.2.

Replace 'in accordance with 438 of Cenelec HD 224' by 'in accordance with Chapter 41, Section 411 of HD 384';

— Section 14.1.2.1.2.

This section is deleted;

— Section 14.1.2.1.6.

Replace by the following:

'In safety circuits comprising two or more parallel channels all information other than that required for parity checks shall be taken from one channel only.'

— Section 14.1.2.1.8.

Replace the first sentence of this section by the following:

'The construction and arrangement of the internal power supply units shall be such as to prevent the appearance of false signals at out-puts of electric safety devices due to the effects of switching.'

— Section 14.1.2.2.1.

Replace by the following:

'The operation of a safety contact shall be by positive separation of the circuit-breaking devices. This separation shall occur even if the contacts are welded together.

Positive opening is achieved when all the contact-breaking elements are brought to their open position and when for a significant part of the travel there are no resilient members (e.g. springs) between the moving contacts and the part of the actuator to which the actuating force is applied.

The design shall be such as to minimize the risk of a short-circuit resulting from component failure.'

— Section 14.1.2.2.2.

Add:

'The safety contacts shall belong to the following categories as defined in publication IEC 337-1:

- (a) AC 11 for safety contacts in a.c. circuits;
- (b) DC 11 for safety contacts in d.c. circuits.'

Substitute 'enclosure' for 'sheathing';

— Section 14.1.2.2.3.

Substitute 'enclosure' for 'sheathing';

— Section 14.1.2.2.5.

Delete the words 'If the contact elements rub on insulating parts.'

— Section 14.1.2.3.1.

This section is deleted;

Amend the numbering:

'14.1.2.3.2.' becomes '14.1.2.3.1.'

'14.1.2.3.3.' becomes '14.1.2.3.2.';

— Section 14.1.2.3.3.

Add the following paragraph:

'(d) In redundancy-type circuits measures shall be taken to limit as far as possible the risk of defects occurring simultaneously in more than one circuit arising from a single cause.';

— Section 14.1.2.5.

Replace by the following:

'In the case of redundancy-type safety circuits, it shall be ensured by mechanical or geometric arrangements of the transmitter elements that a mechanical fault shall not cause loss of redundancy.

Transmitter elements of safety circuits shall withstand, independently of the direction, a vibration of sine-wave form, with a frequency f of between 1 Hz and 50 Hz and an amplitude a (mm) which is given as a function of f by the equations:

$$a = \frac{25}{f} \text{ for } 1 < f \leq 10 \text{ Hz}$$

$$a = \frac{250}{f^2} \text{ for } 10 < f \leq 50 \text{ Hz}$$

Transmitter elements of safety circuits mounted on cars or doors shall withstand, independently of the direction, an acceleration of $\pm 30 \text{ m/sec}^2$.

Note: Where shock absorbers for transmitter elements are fitted they shall be considered as part of the transmitter elements.';

— Section D.2 (j) 2.

Add the following:

'However, each Member State may fix a testing speed higher than that indicated but not exceeding the nominal speed (N b).';

— Section F.O.2.5.

Add the following:

'In accordance with Article 13 (2) of Directive 84/528/EEC.'

3. In so far as certain sectors designated in the standard in accordance with section 0.1.4 by N a, N b or N c, may remain within the scope of national regulations, each Member State shall, six months after the Directive is published, inform the Commission and the other Member States of the conditions to be fulfilled within its national territory.

ANNEX II

LIST OF LIFT COMPONENTS SUBJECT TO EEC TYPE-EXAMINATION AND EEC INSPECTION IN ACCORDANCE WITH ARTICLE 2 ⁽¹⁾

1. Landing-door locking devices;
2. Overspeed governors (car and counterweight);
3. Safety gears (car and counterweight);
4. Buffers (energy accumulation type with buffered return movement and energy dissipation buffers).

⁽¹⁾ As soon as the requirements for landing doors are supplemented as regards behaviour in fire, in accordance with the procedure laid down in Article 5, they will also be subject to EEC type-examination and EEC inspection.

ANNEX III

MODEL EEC TYPE-EXAMINATION CERTIFICATE

Name of the approved body

EEC type-examination certificate

EEC type-examination No

1. Category, type and make or trade name

2. Manufacturer's name and address

3. Name and address of certificate holder

4. Date of submission for EEC type-examination

5. Certificate issued on the basis of the following requirement

6. Test laboratory

7. Date and number of laboratory report

8. Date of EEC type-examination

9. The following documents, bearing the EEC type-examination number shown above, are annexed to this certificate

10. Any additional information

Place

(Date)

(Signature)