

Nr.	Hazardous Situation	Cause-Trigger	Incident/Effect	Assessment actual		Priority Level	Corrective Action See EN 81-80
				S	F		
58	Large gap between car and wall facing the car entrance	Lift has a breakdown, person is escaping through the gap by self-rescue	Person falling down the well or shearing when car starts to move	I	D	H	5.11.1
59	Excessive distance between car door and landing door	Playing children getting in between	Falling down the well or crushing when car starts, serious injury or death	I	D	H	5.11.2
60	No or inadequate emergency operation system	Lift breakdown, instructed person tries to rescue trapped users, rescue is delayed, rescue is unsafe	Panic, claustrophobia, person falling down the well	II I	C D	H	5.12.2
61	No shut-off valve	Maintenance person opens connection between hydraulic piping and valve block	Release of oil to maintenance person, pollution	III	D	L	5.12.3
62	No independent starting contactors	Welding of main contacts, sticking of armature, car is moving with open safety chain	Person sheared between landing and car door, maintenance person sheared or crushed on car roof or in pit	I	D	H	5.12.4
63	No or inadequate slack rope/chain device	Car is stalled when moving down, car falls	Users crushed, serious injury	II	D	M	5.12.5
64	No run-time limiter	Machine is running with car stalled	Damage to equipment which increases the probability of injury to persons or fire	III	D	L	5.12.6
65	No or inadequate low pressure device	When hand-lowering, blocked car can fall down	Persons in car crushed	II	D	M	5.12.7
66	Insufficient protection and marking of electrical equipment	Maintenance/inspection person touches live contacts or terminals	Electric shock	I	D	H	5.13.1

Nr.	Hazardous Situation	Cause-Trigger	Incident/Effect	Assessment actual		Priority Level	Corrective Action
				S	F		
							See EN 81-80
67	No or inadequate protection on lift machine motor	Short-circuiting or overheating of lift machine motor, breakdown of lift, persons trapped	Panic, claustrophobia, etc.	II	D-E	L	5.13.2
68	No lockable main switch	A person switches lift on when another person is working on the lift	Maintenance/ inspection person is sheared or crushed, injury to users	I	D-E	M	5.13.3
69	No protection against phase reversal	Unexpected movement in wrong direction due to phase reversal	Serious injury to maintenance persons, users crushed between landing and car door	II	D-E	L	5.14.1
70	No or inadequate inspection control and stopping device on car roof	Uncontrolled movement of car when maintenance/ inspection person is on car roof	Shearing and crushing, serious injury or death	I	C-D	H	5.14.2
71	No or inadequate alarm system	Users trapped due to breakdown of lift	Panic, claustrophobia, delayed medical care, etc., serious injury or death	I II	D C-D	H	5.14.3
72	No or inadequate communication system between machine room and car	Trapped persons in car try to self-rescue, unexpected car movements	Person sheared or falling down the well, serious injury or death	I	D-E	M	5.14.4
73	No or inadequate load control on car	Car is overloaded and travels in down direction, car passes the destination floor due to rope slipping and doors are already open	Shearing and crushing between car and landing door, serious injury or death	I II	E D-E	L	5.14.5
74	Missing notices, markings and operating instructions	Users overload the car, persons get into hazardous areas	Serious or fatal injuries	I	D-E	M	5.15
Frequency (hazard cause level): A Frequent, B Probable, C Occasional, D Remote, E Improbable, F Impossible			Severity (hazard effect category): I Catastrophic, II Critical, III Marginal, IV Negligible		Priority level: E Extreme, H High, M Medium, L Low		

3.3.5 The original risk profile

The table below shows the original risk profile, which can be present in existing lift installations, which have not been brought up to today's state-of-the-art safety levels in accordance with the EN 81 series of standards.

In the risk profile, some risks appear twice. The background for this doubled assessment is that some hazardous situations can lead to different effects, e.g. to catastrophic incidents with a lower probability and to critical incidents with a higher probability. Accident statistics may show different experiences from country to country. In these cases the double assessments should demonstrate that, even if catastrophic incidents may not be experienced in a country, there is still a certain probability for critical incidents.

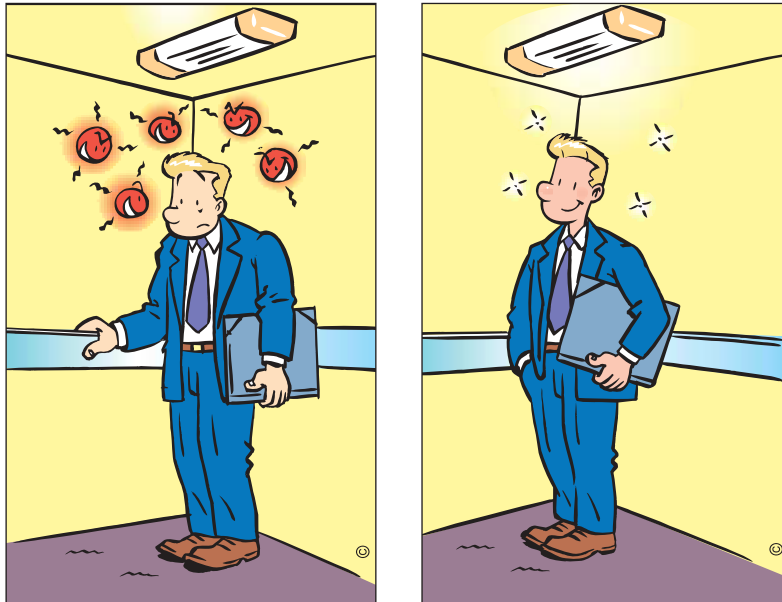
SNEL TABLE – ORIGINAL RISK PROFILE

Frequency	Severity			
	I	II	III	VI
Number of hazardous situation				
A				
B			30	
C		6 25 30 60	37 46 57	
C-D	70	3 9 15 17 19 22 23 27 40 50 56 71	29 45	
D	1 3 7 8 12 13 14 16 17 26 27 31 32 33 34 39 40 43 50 53 54 58 59 60 62 66 71	18 21 24 41 44 47 48 52 63 65	28 42 49 61 64	
D-E	35 36 51 52 68 72 74	20 38 55 67 69 73		
E	10 11 24 55 73			
F				
Frequency (hazard cause level): A Frequent, B Probable, C Occasional, D Remote, E Improbable, F Impossible		Severity (hazard effect category): I Catastrophic, II Critical, III Marginal, IV Negligible		
NOTE 1 Numbers in cells correspond to the number of hazardous situations as listed in Table .				
NOTE 2 For the significance of shading patterns, see Table .				
NOTE 3 For reasons of practical application, the frequency category D was subdivided into C-D, D and D-E.				

3.3.6 Risk and solutions illustrated by the ELA – ZACK drawings

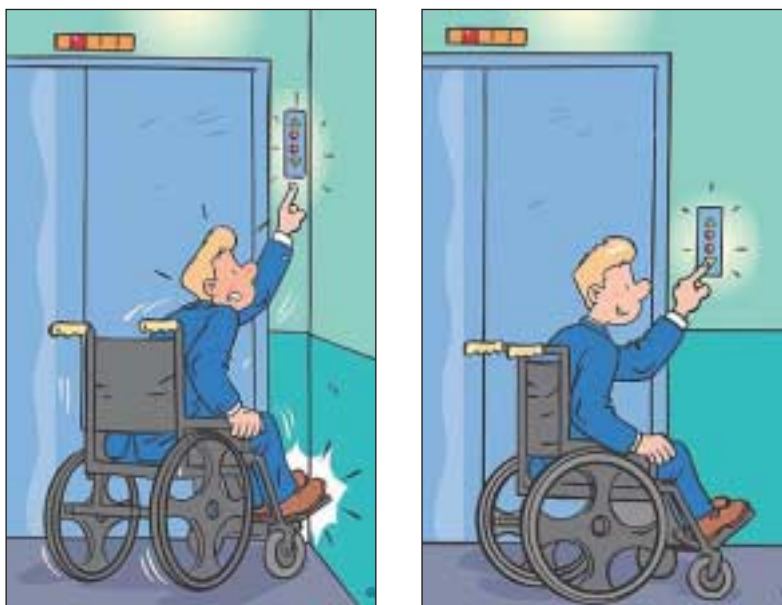
SNEL risks as included in the EN 81-80, illustrated by Zack.

1 Presence of harmful materials



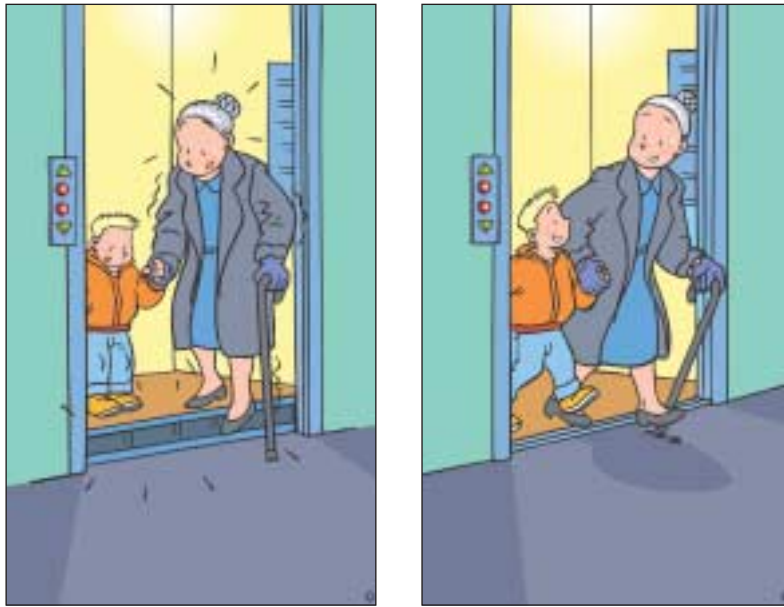
Eliminate any asbestos in the braking system, in the well enclosure and all interfaces lift/building (well, machine room)

2 No or limited accessibility for disabled persons



Stop controls on landings and inside the car to be well positioned or/and modified to achieve good visibility and easy access by disabled. High degree of precision to be achieved in the stopping accuracy

3 Drive system with bad levelling accuracy



Install modern drive control with correct levelling accuracy, to avoid tripping of users and serious injuries

8 Inadequate locking devices on access doors to well and pit



State-of-the-art locking of all inspection doors to the well and pit

- 12 No or inadequate (pit) screen for several lifts in the same well
- 13 No or inadequate partition for several lifts in the same well
- 43 No or inadequate balustrade on car roof



- Install screen or partition in well and/or pit to separate lifts and avoid serious accidents to maintenance staff
- Install balustrade with proper height

- 14 Insufficient safety spaces in headroom and/or pit
- 70 No or inadequate inspection control station and stopping device on car roof



Install control and safety devices protecting maintenance workers in headroom and pit

19 No or unsafe means of access to machine and pulley room



Install the necessary ladder, handrail & equipment for a safe and easy access to the machine room

47 No or inadequate protection means on sheaves, pulleys and sprockets against injury



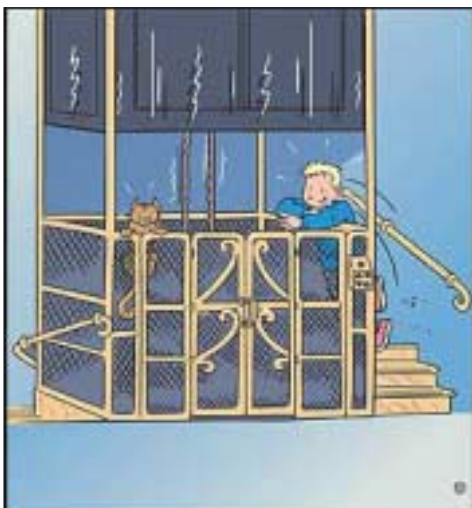
Install necessary protection shields in machine & pulley room

23 Inadequate lighting in machine & pulley room



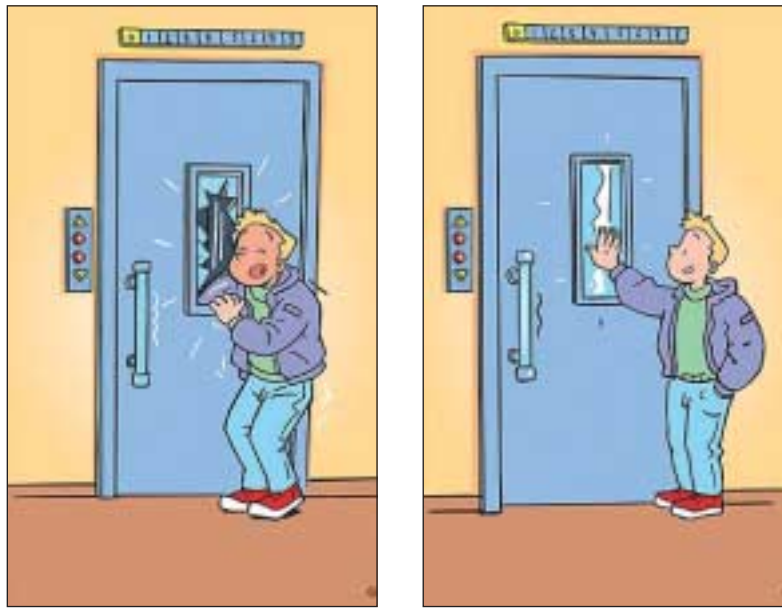
Install sufficient lighting in machine room

- 6 Well enclosures with perforated wall
- 7 Partially enclosed well with too low enclosure
- 25 Perforated landing doors and car doors



Complete the enclosure of the well and landing doors, to avoid persons to enter the well or limbs being passed through openings

27 Inadequate glass in doors



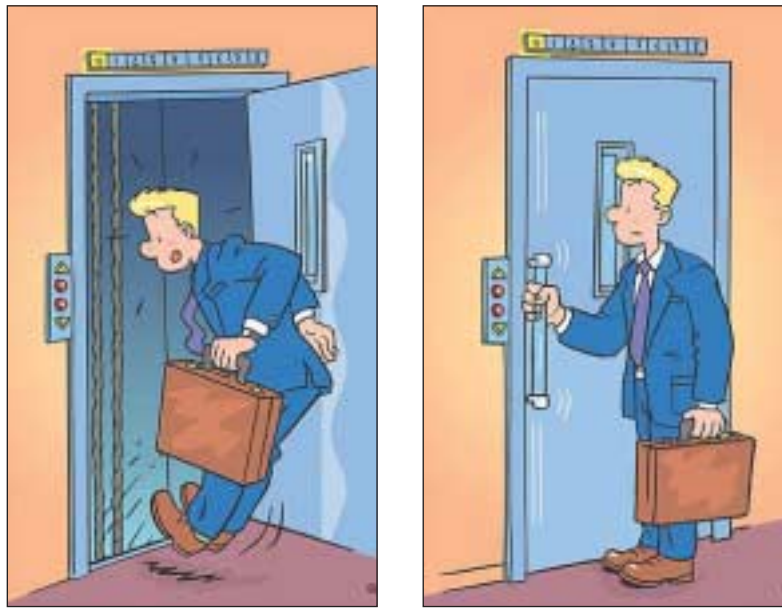
Install safety glass to avoid persons breaking the glass and passing limb through opening

30 No or inadequate protective devices on power operated doors



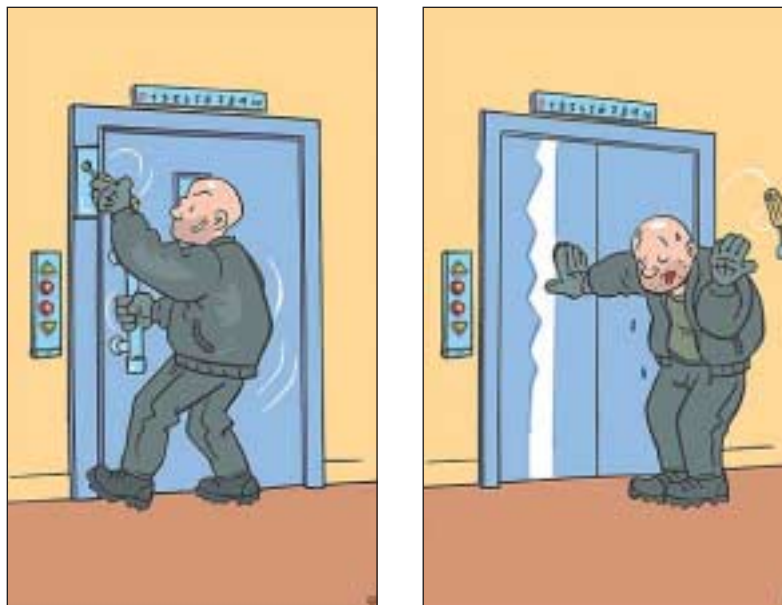
Fit human and animal presence detectors to the automatic doors to avoid persons and animals to be crushed by closing door panels

31 Unsafe locking device of landing door



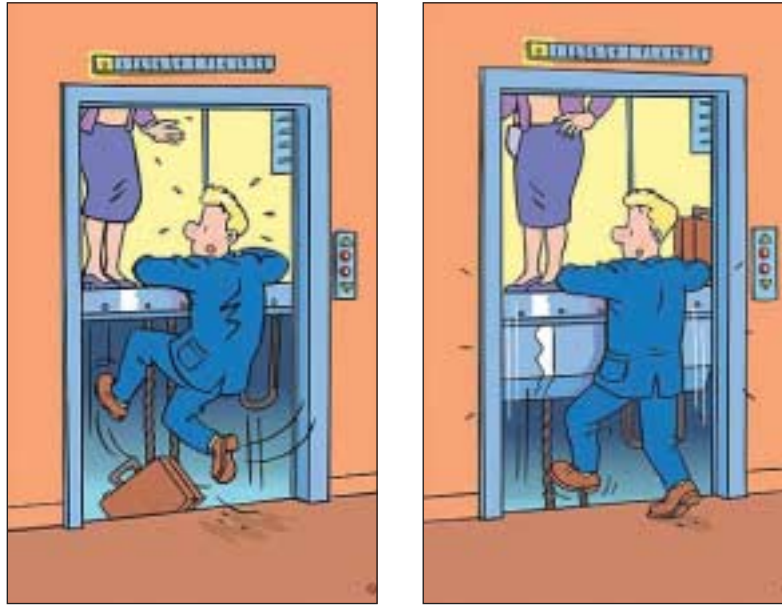
Place state-of-the-art locking devices to avoid person falling into the well, serious injury or death

32 Unlocking of landing door possible without a special tool



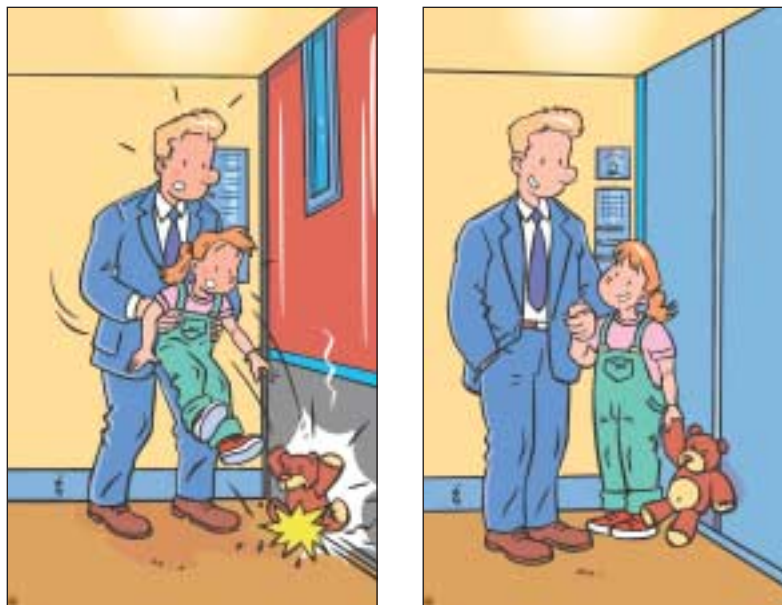
Replace the locking system with state-of-the-art vandal-proof system

39 Inadequate length of car apron



Install appropriate car aprons, avoiding fall in pit during emergency exit

40 Car without doors



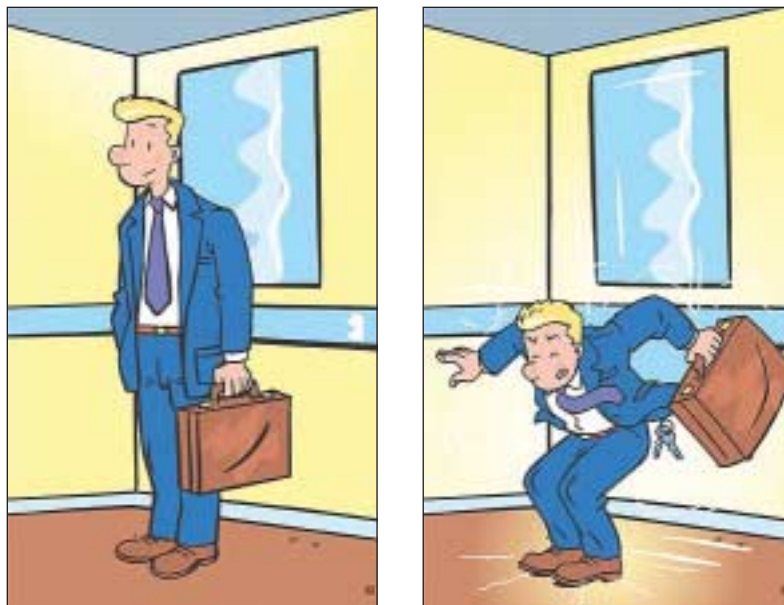
Car doors to be fitted and a floor level indicator to be fitted inside the car

46 No or inadequate emergency lighting in car



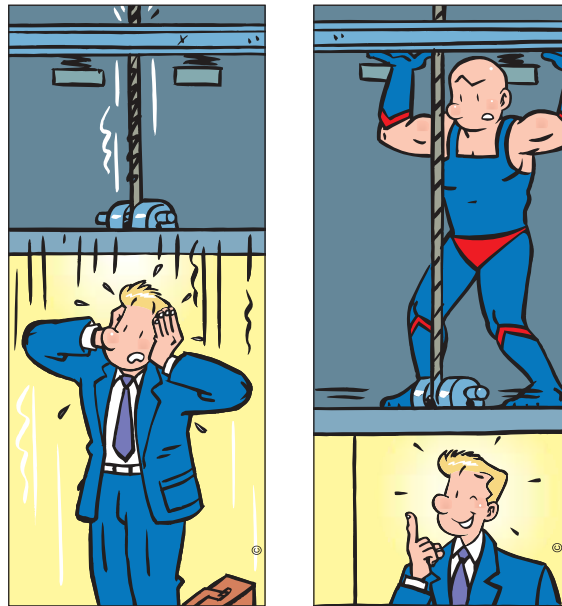
Provide cars with emergency lighting that operates in the event of a main power supply failure. It must operate for long enough to enable rescue services to intervene in a normal manner

50 No or inadequate safety gear and/or overspeed governor on electric lifts



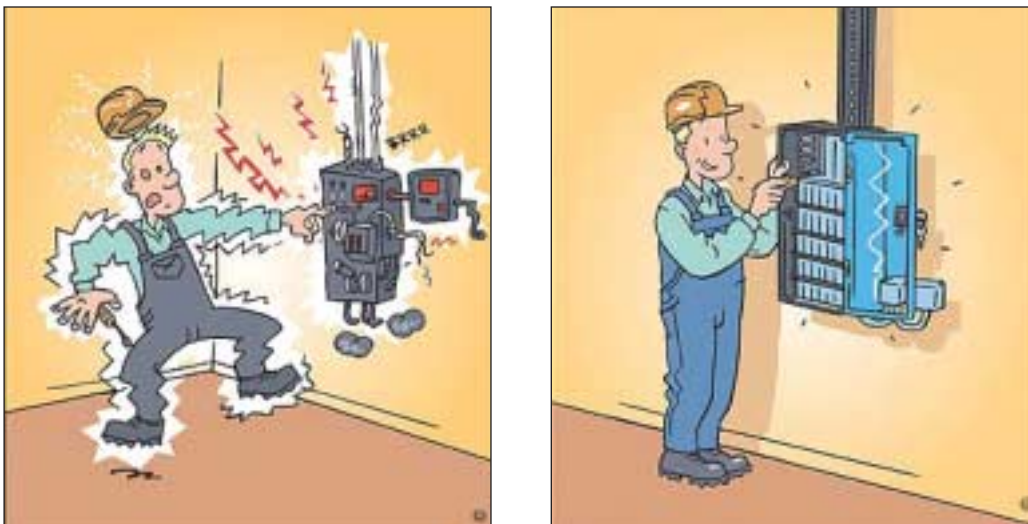
Fit a parachute system providing acceptable speed deceleration

52 No protection means against ascending car
overspeed on traction drive lifts with counterweight



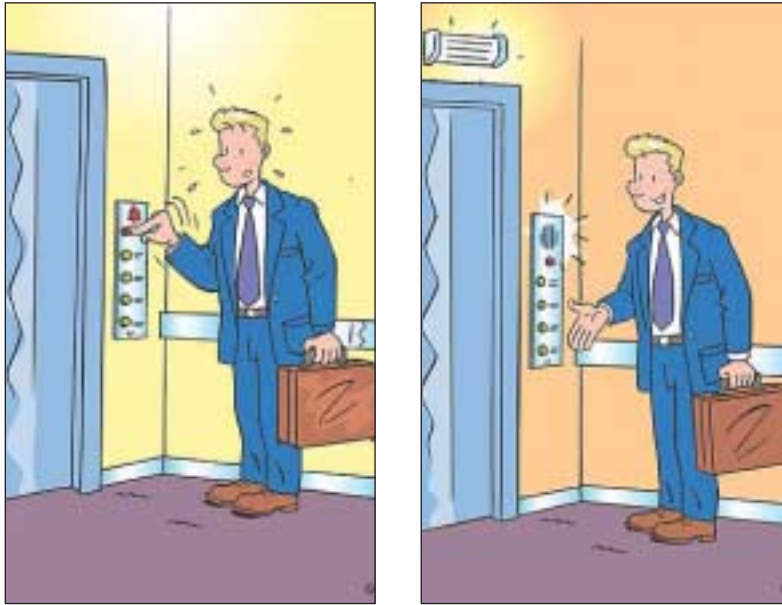
Fit a device preventing uncontrolled movements
of the car towards the top of the well

66 Insufficient protection and marking of electrical equipment



Install state-of-the-art electrical equipment,
including clear markings to avoid electrical shock

71 No or inadequate alarm device



Modify the alarm system, to have a state-of-the-art two-way telesystem of communication

3.4 Link between SNEL and the Use of Work Equipment Directive (UWED)

UWED (Use of Work Equipment Directive) concerns the minimum safety and health requirements for the use of work equipment by workers at the workplace.

This Directive is referring to Article 16 (1) of Council Directive 89/391/EEC of June 12, 1989 on the introduction of measures by the member states encouraging improvements in the safety and health of workers at work.

This directive is applicable for lifts installed and used at the workplace.

Some member states want to go even further by applying this directive for installations in private and or residential buildings.

Indeed those installations are also subject to maintenance and inspection activities as described in the next UWED definitions:

Work equipment:

Any machine, apparatus, tool or installation used at work.

Use of work equipment:

Any activity involving work equipment such as starting or stopping the equipment; its use, transport, repair, modification, maintenance and servicing, including - in particular - cleaning.

Danger zone:

Any zone within and/or around work equipment in which an exposed worker is subject to a risk to his health or safety.

Exposed worker:

Any worker wholly or partially in a danger zone.

Operator:

The worker or workers given the task of using work equipment.

Below, you will find a table linking the significant hazards (# 74 SNEL) dealt with by this standard EN 81-80 and the link with the relevant applicable minimum safety requirements as laid down in annex I of the Use of Work Equipment Directive under UWED, reference 89/655/EC, amended by 95/63/EC (in the table referred to in italic) and 2001/45/EC.

Please note that if one or more minimum requirements of the UWED directive are not mentioned in the table above, this doesn't mean that they are not applicable!

A complete conformity check of the installation, with the requirements of UWED should be done considering all mentioned safety requirements of this directive and its amendments.

LIST OF SIGNIFICANT HAZARDS AND THEIR LINK WITH UWED

Nr.	Hazardous situation	Relevant clauses in this standard	Relevant clauses in other standards	Relevant clauses in annex I, 89/655/EC and 95/63/EC (<i>italic</i>)
1	Presence of harmful materials (such as asbestos) - landing doors; - shaft walls; - car walls; - arc shields; - brake - door locking	5.1.4	0.3.1 (EN 81-1/2)	2.17
2	No or limited accessibility for disabled persons Lift without controls for disabled persons	5.2.1	PrEN 81-70	Not covered
3	Drive system with bad stopping /levelling accuracy Out of date car stopping controls (step due to stopping accuracy)	5.2.2	5.3.3 (PrEN 81-70)	2.15 <i>3.2.4 b</i>
4	Protection against vandalism or misuse.	5.3	PrEN 81 -71	-
5	No or adequate control functions in case of fire Behaviour of lifts in the event of fire	5.4	pr EN 81-73	2.17 2.10 <i>3.2.4 d</i>
6	Open mesh well	5.5.1.1	5.2 (EN 81-1/2)	2.8
7	Partially enclosed well with too low enclosure	5.5.1.2		2.8
8	Inadequate locking devices on access doors to well and pit	5.5.2		
9	Inadequate vertical surface below landing doors sills	5.5.3		
10	Counterweight/balancing weight without safety gear in case of accessible spaces below well	5.5.4		2.5
11	No or inadequate partition of counterweight/ Balancing travel path in the pit	5.5.5	5.6.1 (EN 81-1/2)	2.8 2.16
12	No or inadequate pit screen for several lifts in the same well	5.5.6.1	5.6.2 (EN 81-1/2)	2.8 2.16
13	No or inadequate partition for several lifts in the same well	5.5.6.2	5.6.2.2 (EN 81-1/2)	2.8 2.16 <i>3.2.4 c</i>

Nr.	Hazardous situation	Relevant clauses in this standard	Relevant clauses in other standards	Relevant clauses in annex I, 89/655/EC and 95/63/EC (italic)
14	Insufficient safety spaces in headroom and pit	5.5.7	5.7.1, 5.7.2, 5.7.3.3 (EN 81-1) 5.7.1, 5.7.2 (EN 81-2) PrEN 81-21	2.8 2.15 2.16 3.2.4 c
15	Unsafe pit access	5.5.8	5.7.3.2 (EN 81-1), 5.7.2.2 (EN 81-2),	2.15 2.16
16	No or inadequate stopping devices in the pit or in the pulley room	5.5.9	5.7.3.4, 6.4.5 (EN 81-1) 5.7.2.5, 6.4.5 (EN 81-2)	2.3 3.2.4 c 3.2.4 d
17	No or inadequate lighting in the well	5.5.10	5.9 (EN 81-1/2)	2.9
18	No alarm system in pit and/or car	5.5.11	5.10 (EN 81-1) 5.10, 5.5.14.3 (EN 81-2)	3.2.4 d
19	No or unsafe access to machine and pulley room	5.6.1	6.2 (EN 81-1/2)	2.16
20	Slippery floor in machine or pulley room	5.6.2	6.3.1.2, 6.4.1.2 (EN 81-1/2)	2.16
21	Insufficient clearances in machine room	5.6.3	6.3.2 (EN 81-1/2)	2.16
22	No or inadequate protection on different levels in machine/pulley room	5.6.4	6.3.2.4 and 6.3.2.5 (EN 81-1/2)	2.16
23	Inadequate lighting in machine or pulley room	5.6.5	6.3.6, 6.4.7 (EN 81-1/2)	2.9 2.16
24	Inadequate means of handling equipment	5.6.6	6.3.7 (EN 81-1/2)	2.7 2.15 3.2.2
25	Perforated landing doors and car doors	5.7.1	7.1, 8.6.1 (EN 81-1/2)	2.8
26	Inadequate design of landing doors	5.7.2	7.2.3., 7.4.2.1 (EN 81-1/2)	2.8
27	Inadequate glass in doors	5.7.8	7.2.3.2, 7.2.3.3, 7.2.3.4, 8.6.7.2, 8.6.7.3 and 8.6.7.4 (EN 81-1/2)	<u>2.7</u>
28	No or inadequate protection against dragging of fingers on sliding car or landing doors with glass	5.7.4	7.2.3.6, 8.6.7.5 (EN 81-1/2)	-

Nr.	Hazardous situation	Relevant clauses in this standard	Relevant clauses in other standards	Relevant clauses in annex I, 89/655/EC and 95/63/EC (italic)
29	No or inadequate lighting on landings	5.7.5	<u>7.6.1 (EN 81-1/2)</u>	<u>2.9</u>
30	No or inadequate protective devices on power operated doors	5.7.6	<u>7.5.2.1.1 and 8.7.2.1.1 (EN 81-1/2)</u>	<u>2.8</u> 3.2.4 c
31	Unsafe landing door locking	5.7.7	7.7 (EN 81-1/2)	3.2.4 c
32	Unlocking of landing door without a special tool	5.7.8.1	7.7.3.2 (EN 81-1/2) PrEN 81-71	2.8
33	Well enclosure with perforated walls near door locks	5.7.8.2	-	2.8
34	No automatic closing device on sliding doors	5.7.9	7.7.3.2 (EN 81-1/2)	2.8
35	Inadequate link between panels of landing doors	5.7.10	7.7.6 (EN 81-1/2)	2.7
36	Inadequate fire resistance of landing doors	5.7.11	-	-
37	Car door moving with open landing door	5.7.12	-	2.8
38	Large car area in relation to rated load	5.8.1	8.2 (EN 81-1/2)	3.2.2
39	Inadequate length of apron	5.8.2	8.4 (EN 81-1/2) PrEN81-21	3.2.4 b 3.2.4 d
40	Car without doors	5.8.3	8.6, 8.7, 8.8, 8.9 and 8.10 (EN 81-1/2)	2.8 3.2.4 b 3.2.4 c
41	Unsafe locking of car roof trap door	5.8.4	8.12.4.2 (EN 81-1/2)	2.8 3.2.4 b
42	Insufficient strength of car roof	5.8.5	8.13.1 (EN 81-1/2)	2.7
43	No or inadequate balustrade on car roof	5.8.6	8.13.3 (EN 81-1/2) PrEN 81-21	2.8 3.2.4 d
44	Insufficient ventilation in the car	5.8.7	8.16 (EN 81-1/2)	-
45	Inadequate lightning in the car	5.8.8.1	8.17.1, 8.17.2, 8.17.3 (EN 81-1/2)	2.9
46	No or inadequate emergency lightning in car	5.8.8.2	8.17.4 (EN 81-1/2)	2.9
47	No or inadequate protection means on sheaves, pulleys and sprockets against injury	5.9.1	9.7 (EN 81-1) 9.4 (EN 81-2)	2.8 3.2.4 c

Nr.	Hazardous situation	Relevant clauses in this standard	Relevant clauses in other standards	Relevant clauses in annex I, 89/655/EC and 95/63/EC (italic)
48	No or inadequate protection against rope / chains leaving the sheaves, pulleys or sprockets	5.9.1	9.7 (EN 81-1) 9.4 (EN 81-2)	2.5 2.6
49	No or inadequate protection means on sheaves pulleys or sprockets against introduction of objects	5.9.1	9.7 (EN 81-1) 9.4 (EN 81-2)	–
50	No or inadequate safety gear and/or overspeed governor on electric lifts	5.9.2	9.8, 9.9 (EN 81-1)	3.2.4 a
51	No or inadequate slack rope switch for governor rope	5.9.3	9.9.11.3 (EN 81-1) 9.10.2.10.3. (EN 81-2)	2.7 3.2.4 a
52	No protection means against ascending car overspeed on traction lifts with counterweight	5.9.4	5.12.1, 9.10 (EN 81-1)	3.2.4 a 3.2.4 b
53	Inadequate design of lift machine for electric lifts	5.9.4 5.12.1	5.12.1, 12.4.2 (EN 81-1)	2.7 3.2.4 c
54	No or inadequate protection against free fall, overspeed and creeping on hydraulic lifts	5.9.5	9.5 table 3, 14.2.1.5 (EN 81-2)	3.2.4 a 3.2.4 b
55	Counterweight or balancing weight by 2 wire ropes	5.10.1	10.2.1 (EN 81-1)	-
56	No or inadequate buffers	5.10.2	10.3 (EN 81-1/2)	-
57	No or inadequate final limit switches	5.10.3	10.5 (EN 81-1/2)	-
58	Large gap between car and wall facing the car entrance	5.11.1	12.4.2 (EN 81-1/2)	3.2.4 b 3.2.4 c
59	Large gap between car door and landing door	5.11.2	11.2.3, 11.2.4 (EN 81-1/2)	3.2.4 b 3.2.4 c
60	No or inadequate emergency operation system	5.12.2	12.9,16.3.1 (EN 81-1/2)	3.2.4 d
61	No shut-off valve	5.12.3	12.5.1 (EN 81-2)	2.3
62	No independent starting contactors	5.12.4	12.7 (EN 81-1) 12.4 (EN 8-2)	-
63	No or inadequate slack rope/chain device	5.12.5	9.5.3, 12.9 (EN 81-1) 12.13 (EN 81-2)	-
64	No run – time limiter	5.12.6	12.10 (EN 81-1) 12.12 (EN 81-2)	-
65	No or inadequate low pressure device	5.12.7	12.9.1.5 (EN 81-2)	3.2.4 a

Nr.	Hazardous situation	Relevant clauses in this standard	Relevant clauses in other standards	Relevant clauses in annex I , 89/655/EC and 95/63/EC (italic)
66	Insufficient protection against electric shock and/or marking of electrical equipment ; missing notices	5.13.1	13.1.2, 13.5.3.3 (EN 81-1/2)	2.15 2.19
67	No or inadequate protection on lift machine motor	5.13.2	13.3.1, 13.3.2,13.3.3 (EN 81-1/2)	2.17
68	No lockable main switch	5.13.3	13.4.2 (EN 81-1/2)	2.13
69	No protection against phase reversal	5.14.1	14.1.1.1.j (EN 81-1/2)	3.2.4 <i>c</i>
70	No or inadequate inspection control station and stopping device on car roof	5.14.2	14.2.2, 14.2.1.3 (EN 81-1/2)	2.13
71	No or inadequate alarm device	5.14.3	14.2.3 (EN 81-1/2)	3.2.4 <i>d</i>
72	No or inadequate communication system Between machine room and car (travel height >30m)	5.14.5	14.2.3.4 (EN 81-1/2)	3.2.4 <i>d</i>
73	No or inadequate load control in the car	5.14.5	14.2.4 (EN 81-1/2)	3.2.1
74	Missing notices, markings and operating instructions	5.15	15.2.1,15.3,15.4,15.5.1, 15.5.3,15.7,15.11,15.15 (EN 81-1) 15.2.1,15.2.5,15.3,15.4, 15.5.1,15.5.3,15.7,15.11, 15.15,15.17,15.18 (EN 81-2)	2.13 al.2 2.15

4 RIGHTS AND OBLIGATIONS OF THE DIFFERENT ACTORS

4.1 The different actors

The degree of liability depends on national legislation. However, one should take into account that at least 4 parties (lift company, lift owner, third party, government) are involved when it comes to an accident resulting from one of the SNEL identified risks and caused by insufficient safety measures applied to lifts (often based on SNEL).

Intensive dialogue with lawyers and/or law firms is an important first action for a smooth application of the national legislation.

A starting point is to verify how for example the European directives / recommendation mentioned hereunder are today transposed into national law.

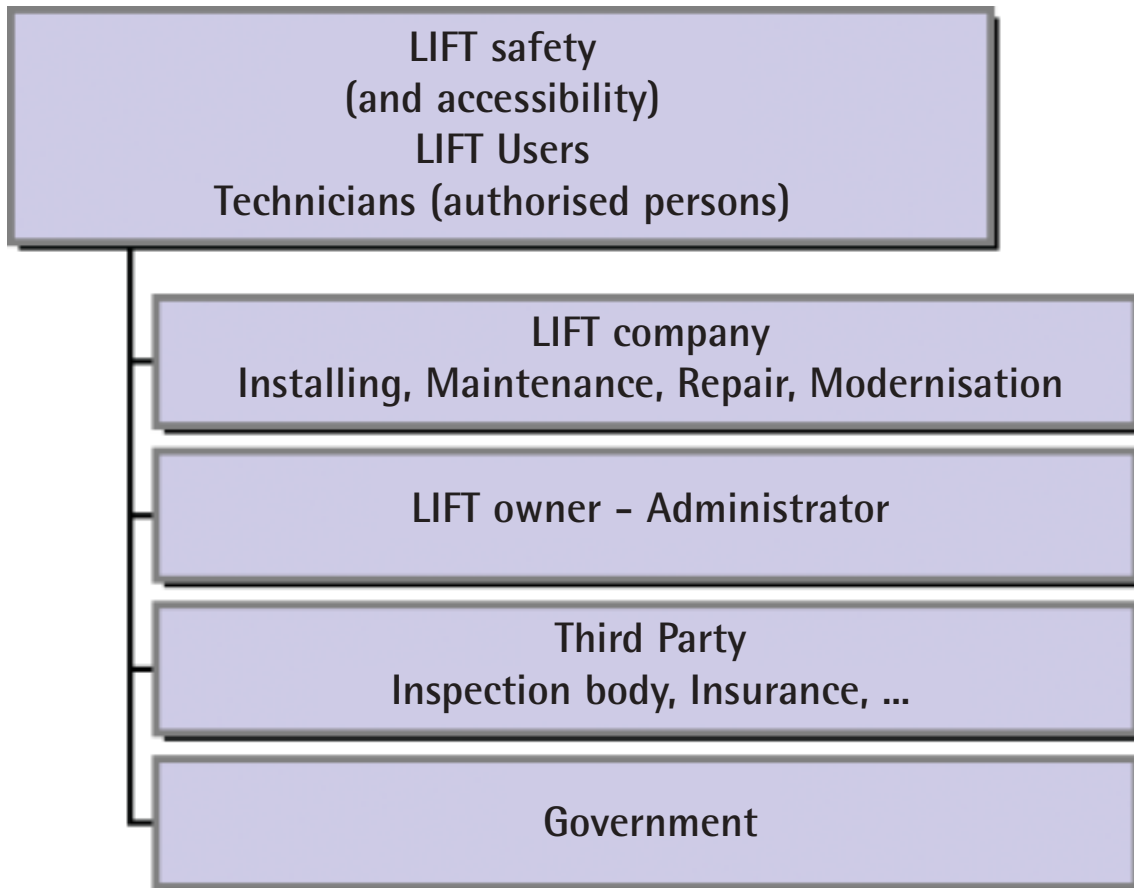
The most relevant ones are:

- The "10" Recommendations (95/216/EC).
- The Use of Work Equipment Directive (UWED, 89/655/EC, 95/63/EC and 2001/45/EC).
- The Product Liability Directive (85/374/EC of July 25, 1985).
- The Product Safety Directive for the consumers (2001/95/EC of 3rd of December 2001).
- The Directive 89/391/EC of June 12, 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.

Furthermore, it is important to know how the courts deal with existing national and European legislation, the state-of-the-art safety philosophy, jurisprudence and applicable existing national and new European standards.

These objectives can be worked out by making an inventory of potential "Frequently Asked Questions". To illustrate this, it should be clear which parties are involved when an accident occurs. Let us suppose, for example, that a Risk Analysis has been done as scheduled by the law, but the required modernisation work has not been done accordingly. The question is then: who is responsible in case an accident with injury, or in the worst case if death occurs as a result?

An overview of the major involved parties:



4.2 What if SNEL is not applied?

If SNEL has not been applied well, we should be aware that in case of lift accidents, court decisions will rely on criteria and facts. The court will relate to the application of the "state-of-the-art" technology which in case of existing lifts means "SNEL".

SNEL is today the ratified standard in Europe, officialised by CEN.

Lift owners, the lift industry and third party inspection bodies have a vital interest in understanding and learning about all implications of SNEL, including links with closely related EU and national regulations.

If not, SNEL could become a state-of-the-art document that can be used against them in any court case!

5 ONCE SNEL HAS BEEN INTEGRATED AND WELL APPLIED IN YOUR COUNTRY: FOLLOW UP

Once SNEL has been implemented as national legislation, many questions from all kind of sources will come up.

The main objective of having a smooth application of the new law, is to have the law **interpreted consistently** by all parties. Therefore, a continued dialogue between all parties is required in order to re-adjust the practical work if necessary.

To have an overview of possible obstructions, we will sum up a list of elements to be taken into account when the law is being applied:

- a) Lift companies need **to plan the impact on available resources and time schedules** within their organisation. (This exercise is part of the preparation work as well).
- b) **Safety components capabilities and safety levels**, which are the result of the practical applications of SNEL, are to be decided at industry level, after consultation with inspection bodies and involved civil servants.
- c) **Inspection bodies** need to be informed by the industry about the practical applications of modernisation and vice versa. (what kind of safety components and safety levels)
- d) The same applies to **government and civil servants**.
- e) **All possible scenarios regarding liability, legal and judicial aspects** (see also point 4) are to be listed. (This exercise is part of the preparation work as well). This will lead automatically to the need of informing all customers whose installation falls under the new law in order to convince them about the possible consequences if the law is ignored.
- f) Exceptional cases, such as very old lifts, need to be considered on a case by case, as huge modernization costs can be out of proportion in comparison with the value of the lift. **"Reasonably practicable"** is defined as follows: "In deciding what is reasonably practicable the seriousness of the risk of injury should be weighted against the difficulty and cost of removing or reducing that risk. In considering the cost, no allowance should be made for the size, nature or profitability of the business concerned. Where the difficulty and costs are high and a careful assessment of the risk shows it to be comparatively unimportant, action may not need to be taken. On the other hand when the risk is high, action should be taken at whatever cost".

!!! All parties should be aware that transposing SNEL into national legislation is driven by "safety", as the fundamental reason to legislate is triggered by a standard that aims at improving safety and accessibility of existing lifts !!!

6 SNEL, THE SAFETY CHECKLIST

The safety checklist is proposed in Annex B (table B.2) of the Safety Norm for Existing Lifts EN 81-80*.

The last draft of EN 81-80* is in the annexes of the present binder. The texts of the norm itself can be obtained from your national standardisation organisation.

This checklist is intended to be a tool to identify the significant hazards of an existing lift and to determine which type of protective measure(s) is applicable. It can be amended, taking into account national filtering and local requirements.

A risk assessment should be made on a case by case basis for safety items not covered in this standard.

If a SNEL risk is re-evaluated or if a new risk not covered by this standard is evaluated, this (re-)evaluation should be done following the risk analysis methodology (ISO/TS 14798) as described in this document.

**The text of the norm itself (EN 81-80) can be obtained in your national language, from your national standardisation organisation.*

7 RELATED DOCUMENTS

7.1 Relevant EN-Standards

The following relevant standards can be obtained from your national standardisation institute

- EN 81-80: December 2003, *Safety rules for the construction and installation of lifts – Existing lifts Part 80: Rules for the improvement of safety of existing passenger and goods passenger lifts*

SNEL is also referring to the other relevant EN 81 series of lift standards such as:

- EN 81-1:1998, *Safety rules for the construction and installation of lifts – Part 1: Electric lifts.*
- EN 81- 2:1998, *Safety rules for the construction and installation of lifts – Part 2: Hydraulic lifts.*
- PrEN 81-21, *Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 21: New passenger and goods lifts in existing buildings.*
- EN 81-28, *Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 28: Remote alarm on passenger and goods passenger lifts.*
- EN 81-70:2003, *Safety rules for the construction and installations of lifts – Particular applications for passenger and good passenger lifts – Part 70: Accessibility to lifts for persons including persons with disability.*
- EN 13015:2001, *Maintenance for lifts and escalators, rules for maintenance instructions*
- PrEN 81-71, *Safety rules for the construction and installation of lifts – Particular applications to passenger lifts and goods passenger lifts – Part 71: Vandal resistant lifts.*
- PrEN 81-73, *Safety rules for the construction and installation of lifts – Particular applications for passenger and goods passenger lifts – Part 73: Behaviour of lifts in the event of fire.*

7.2 Relevant EU-Directives and recommendation

Relevant EU Directives and recommendation are in the present annexes (English copy):

Those texts (translated in all European languages) can be easily downloaded from the website of the European Commission:

<http://europa.eu.int/eur-lex/>

They are also available on the ELA website (**www.ela-aisbl.org**) in the section "Members only".

- The "10" Recommendations (95/216/EC)
- UWED (89/655/EC amended by 95/63/EC and 2001/45/EC)
- Product liability directive (85/374/EC of 25th of July 1985)
- Product safety directive for the consumers (2001/95/EC of 3rd of December 2001)
- Directive 89/391/EC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.
- The Lift directive 95/16/EC of 29th of June 1995 regarding new lifts