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# SBS Lift Webinar

**Evolutions in the standardisation process  
with the eyes of a SME**

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**EFESME**

## REVISION OF EN 81 SERIES

# What should be improved

- Clear requirements for maintenance instructions
- Special tools available on-site
- Diagnostic data available throughout the lifespan of the lifts
- SIL-rated circuit and related software available for the lifecycle of the lift



MAINTENANCE  
INSTRUCTIONS



TOOLS



SIL-RATED CIRCUITS  
(PESSRAL)



## MAINTENANCE INSTRUCTIONS

### ANNEX I – Art. 6.2

6.2. Each lift must be accompanied by instructions. The instructions shall contain at least the following documents:  
(a) instructions containing the plans and diagrams necessary for normal use and relating to maintenance, inspection, repair, periodic checks and the rescue operations referred to in point 4.4;



Instruction for:

- Maintenance
- Inspection (by third part, e.g.: N.B.)
- Repair
- Periodic checks (in accordance with the installers instructions )



It shall be specified periodicity of the periodic checks

CURRENT SITUATION ON  
**EN 81-20 + EN 13015**

1

**EN 81-20**

No requirement for  
maintenance instructions

2

**EN 13015**

"Rules for maintenance  
instructions"

3

**EU Commission**

Reviewing the concept of  
instructions

# Why rethink the concept of maintenance instructions?



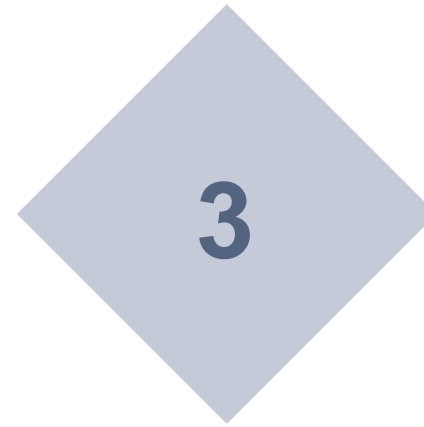
Principle of  
neutrality

NO obligations for  
any party  
(owner, installer,  
etc.)



Product standards

Product  
requirements  
only



Verifiable  
requirements

NO terms such as  
"should", "could",  
etc...



Applicable

Clear, verifiable  
and applicable  
instructions

# EVOLUTION EN ISO 8100-1

1

## EN ISO 8100-1

It contains requirements for maintenance, inspection, and periodic checks

2

## EN ISO 8100-1

The installer defines periodicity of periodic checks (depending on the system)

3

## EU Commission

OK

## MAINTENANCE

### **§158 Difference between market surveillance and inspection for use of lifts**

In some countries periodical inspection of lifts in use is obligatory or performed on a regular basis. This type of inspection is related to the lifts in service and does therefore not fall within the Lifts directive scope. Lifts should be maintained properly in accordance with the installers instructions and the relevant national regulations as lifts may, after some time in use, start to deteriorate which may affect their level of safety. [...]

**Requirements defined in the standard must be maintained throughout the lifespan of the lift**

For each requirement involving functionality (e.g. brake), functional distances for safety (e.g. 6 mm between the door leaf and the landing door jamb), etc...

THE COMPONENTS MUST BE MAINTAINED

THE ACTIVITY TO BE PERFORMED DURING MAINTENANCE MUST BE DEFINED (WITH PERIODICITY)

**Safety  
Level**



## **SPECIAL TOOLS**

### **§ 35 Regulations on lifts in service**

[...] The lift installer must also provide the necessary special tools and appropriate instructions for maintenance, inspection, repair, periodic checks and rescue operations that must accompany the lift in order to be available on site

### **§ 184 The principles of safety integration**

[...] Paragraph (e) of point 1.1.2 of the Machinery Directive implies that, when special equipment, such as special tools or software is necessary for safe and effective execution of maintenance or rescue operations, such equipment should be supplied with the lift by the installer when the lift is placed on the market. [...]

## SPECIAL TOOLS

# A boring topic

What has changed since 1999? And after 2008?

01

Special tools shall be on-site:  
why do not have provisions to  
check the presence of the tools  
if they are fundamental for the  
safety of the lift?

02

Special tools are not only the  
keypad in some lift (or the  
keypad of the inverter....),  
but is also the long  
emergency key.  
Who check that this  
emergency key is available  
on-site?  
The standards should not  
consider the foreseeable  
misuse?

03

Are not these a product  
provisions?  
Who should checks these  
requirements (of the LD)?

## **SIL-RATED CIRCUITS**

### **3.62 SIL-rated circuit**

Circuit based on electrical (E), and/or electronic (E), and/or programmable electronic (PE) technology which is capable to fulfil demands of an electric safety device with a defined safety integrity level (SIL).

### **3.35 mission time**

Mission time represents the maximum period of time for which a system or subsystem can be used before it must be replaced.

## The state of the art

What has changed since 1999? And after 2008?

01

Is there some indication (instruction) to repair the components? If the installer company no longer exist, who is in charge to fix the fault??

02

This is the state of the art, the standard shall consider it

03

The comparision is made with the aricraft supplier, where this kind of diveces have been used for a long time. BUT, every airliner maintenance service has ALL the instruction to repair, substitute and fix every problem.

# THANK YOU FOR YOUR ATTENTION

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