Overview of the EN 81 series of standards

+ Short introduction to the revision of EN 81-1 & EN 81-2

Agoria - 20th March, 2012, with thanks to CEN TC 10
Revision of EN81-1&2

Content of this Introduction

EN 81 family of standards

Revision of EN 81-1&2 - Background

Revision of EN 81-1&2 – International Dimension
EN 81 family of standards
Revision of EN81-1&2: Structure of EN 81 Family of Standards:

CEN TC 10 (Lifts, Escalators and Moving Walks)

Legend:
- Standard published
- Standard in development
- Possible future development
Revision of EN81-1&2
Structure of EN 81 Family of Standards

CEN TC 10 (Lifts, escalators and moving walks)

Legend:
- Standard published
- Standard in development
- Possible future development

Escalators and moving walks
- EN 115: Family of standards
  - EN 115-1: Safety of escalators and moving walks
  - EN 115-2: Improvement of safety of existing escalator installations
  - (TR) EN 115-3: Correlation between EN 115:1995 and EN 115-1:2008
  - EN 115-4: Interpretations related to EN 115 family of standards

Builders Hoist
- EN 12158-1: Builders hoists for goods with accessible platform
- EN 12158-2: Inclined builders hoists for goods with non-accessible load carrying unit
- EN 12159: Builders hoists for persons and goods

Lifts and escalators and moving walks
- EN 627: Data logging and monitoring of lifts, escalators
- EN 12015: EMC – Emission
- EN 12016: EMC – Immunity
- EN 13015: Maintenance instructions for lifts and escalators
- EN 14798 (EN-ISO): Risk assessment and reduction methodology

Other relevant standards
- EN Steel Wire Ropes by CEN/TC 168
  - EN 12385-3: Information for use and maintenance
  - EN 12385-5: Stranded ropes for lifts
  - EN 13411-7: Symmetric wedge socket
Revision of EN 81-1 & EN 81-2
Background
Evolution of the “state of the art” for safety: examples of input

- The current standard is more than 13 years old and need to be aligned with the current safety requirements
- Incorporate the result of studies of the Lift Industry on safety aspects, such as strength of the doors and requirements for safety spaces
- Alignment to the changes in European legislations such as Lifts Directive
- Alignment to the requirements of the recent EN standards, such as EN 81-70 and EN 81-28
Revision of EN81-1&2

Drivers

User experience: examples of input

- More than 80 CEN Interpretation on current edition
- Three amendments since 1998, A1 (PESSRAL), A2 (MRL) and A3 (UCM)
- Input from European interest groups, such as trade Associations and the EU Commission
- Contribution and requests from non-European interest groups from Asia Pacific, North America, etc.
- ISO/TC 178 work on harmonization of International standards
- New technologies and current state of the art
Revision of EN81-1&2

Drivers

Ease of use: examples of input

→ Complete incorporation of three amendments to the body of the standards

→ Remove redundancies of text EN 81-1 and EN 81-2

→ Consolidate clauses within the standard

→ Formulate the text clearly to prevent misunderstandings

→ Simplify the maintenance of the standards

→ Compliance to the standardisation requirements established by CEN, such as Guide 414 (ISO Guide 78), Guide 4, Guide 6 and Guide 12
Revision of EN81-1&2

Main inputs

Text of EN 81-1 & EN 81-2 and Amendments

Interpretations

Comments from International interest groups
- Asia Pacific
- North America
- etc

Comments from European interest groups
- EU Commission
- Notified Body for Lifts
- Trade Associations
  - ELA
  - ELCA
  - EFESME
  - etc.

Comments Outstanding from previous revisions

Standardisation Requirements
- CEN Guides 4,6,12
- CEN Guide 414

Legislative
- Lifts Directive
- Machinery Directive
- Low Voltage Directive

CEN Consultant

EN 81-20
EN 81-50
Revision of EN81-1&2

Outcome

General

Clauses are supported by “formal” Risk Assessment

Format is harmonised with current CEN & ISO standards

Clauses are consolidated and redundancies are removed

Text is formulated clearly to avoid misunderstandings and need for interpretations

Overall user friendliness is improved

Easier to be used by different functions in the profession, such as designers, test laboratories, inspectors, etc.

Maintenance of the standards is simplified and improved
Revision of EN81-1&2
Main deliverables

EN 81-20
-> Passenger and goods passenger lifts
  - Contains requirements for complete passenger or goods passenger lift installations independent of the driving system
  - Groups all the technical requirements for design of
    - Electric drive systems (currently EN81-1)
    - Hydraulic drive systems (currently EN81-2)
    - All other drive systems in the future

EN 81-50
-> Examinations, calculations & tests of lift components
  - Contains description of the examinations, calculations and tests of lift components used in any type of lift (passenger, goods passenger, goods only lift, etc.)
Revision of EN 81-1 & EN 81-2

International dimension
Revision of EN81-1&2
International dimension

Worldwide Acceptance of EN 81-1 and EN 115 Standards (2009)

Legend:
- EN81-1 and EN 115
  - As National standard, or
  - National standards are based on, or
  - Are accepted besides other international standards

National standards based on EN 81-1 & EN 115 in preparation
Revision of EN81-1&2
International dimension

→ EN 81-1 and EN 81-2 have wide acceptance around the world

→ Accepted by many countries with or without the National adaptations

→ Unique opportunity for harmonisation of regional codes and standards, resulting in
  - Promoting and harmonizing the level of safety
  - Establishing common technical understanding for the entire profession
  - Improving the efficiency of the industry with benefits for all stakeholders

→ To maintain such harmonization, close cooperation of National and International standardization organizations is a must
Revision of EN81-1&2
International Cooperation Group

→ China
  ▪ Mutual cooperation agreement with the Standardization Administration of the People's Republic of China, SAC/TC196

→ Korea
  ▪ Mutual cooperation agreement with Korean Elevator Safety Institute (KESI)

→ Japan
  ▪ Technical Exchange meetings with Japan Elevator Association (JEA)

→ Russia
  ▪ Cooperation and Technical Exchange with TC 209

→ Pacific Asia Lift and Escalator Association (PALEA)
  ▪ Liaison agreement

→ Through ISO and CEN Cooperation Framework
  ▪ Direct participation of ISO/TC 178 experts in the CEN/TC 10 standardization work (Korea, Japan, China, North America and PALEA)
Objectives of international cooperation working group

→ Collect comments, suggestions, requirements and incorporate those in the revision process

→ Exchange information on content and progress of the revision

→ Disseminate the information at the National level through the ISO participants

→ Collect and manage the comments during CEN Enquiry and Formal Vote

→ Coordinate schedule of application of the revised standards

→ Remove the current differences as much as possible and align the National standards
## Revision of EN81-1&2

### Schedule

**CEN TC 10 (Lifts, escalators and moving walks)**

**Main Milestones EN 81-20&50**

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<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Approved draft by WG1:</td>
<td>June 2011</td>
</tr>
<tr>
<td>Launch of CEN Enquiry:</td>
<td>November 2011</td>
</tr>
<tr>
<td>Closing of CEN Enquiry:</td>
<td>April 2012</td>
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<tr>
<td>Launch of Formal Vote:</td>
<td>March 2013</td>
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<tr>
<td>Closing of Formal Vote:</td>
<td>June 2013</td>
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<tr>
<td>Publication by CEN (DAV):</td>
<td>September 2013</td>
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<tr>
<td>Harmonisation under Lifts Directive</td>
<td>October 2013</td>
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*Note: Dates are subject to regular review and update*


*To be confirmed during the Formal Vote!*
Thank you !

Philippe Casteleyn