

The background image shows two construction workers in orange safety vests and hard hats. One worker in the foreground is wearing a blue hard hat and is reaching up to adjust a large black metal beam. Another worker in an orange hard hat is visible in the background. The scene is set in an industrial or construction environment with a grey wall and various metal components.

**A guide to  
new lift standards:  
EN81-20 and EN81-50**

Note: This documentation is for guidance purposes only.  
Please refer to the published standards for full details.

**Stannah**

**EN81-20 and EN81-50, two new safety standards for the construction of lifts and for testing of lift components, represent the biggest change to the design standards for lifts in the last 20 years.**

**These new standards bring benefits in terms of safety and accessibility for both lift passengers and service engineers.**

### What are these new standards?

**EN81-20:2014 (Safety rules for the construction and installation of lifts** – Lifts for the transport of persons and goods) defines the technical requirements for the construction of lifts.

**EN81-50:2014 (Safety rules for the construction and installation of lifts)** – covers the design rules, calculations and test and examination for lift components.

These new standards replace EN81-1 (electric lifts) and EN81-2 (hydraulic lifts) first introduced in 1998.



### When do these new standards come into force?

Any lift placed into service after the 31st August 2017 will need to comply with the new standards. The existing standards EN81-1 and EN81-2 will remain in force during the current transition period; which began in August 2014.

### Are there any changes affecting building design?

The increase in refuge spaces, car roof balustrades and landing door strengthening may affect the shaft size, depending on the make and model of your passenger lift. There are also changes that apply to the lift shaft to consider during construction, namely:

- Additional strength required for the safety glass used in the lift car or in shaft construction to withstand point impact
- Shaft walls must be built to withstand a force of 1000N point impact
- Shaft ventilation is the responsibility of the building designer
- There is an option to locate a fire extinguisher or sprinkler system in the shaft. Activation of a sprinkler is only possible when the lift is stationary and electrical circuits within the shaft are switched off by a fire or smoke detection system

### What are the main changes?

#### Passenger safety and comfort

- Greater protection around unintended movement and overspeed
- Brighter car lighting
- Improved clearance of light curtain on doors to avoid smaller objects being trapped
- Improved strength and durability of car walls, roof, doors and landing doors
- Additional strength required for the safety glass used in the lift car or in shaft construction
- Higher requirements for fire resistance of car interiors
- Building shrinkage considered in elevator design for buildings higher than 40m to ensure greater ride quality

#### Service Engineer safety and comfort

- Larger permanent safety spaces in the lift shaft, headroom and pit
- Brighter shaft lighting
- Increased safety when working and testing within a pit
- Guidance for ledges within the lift shaft
- Improved strength and increased height of balustrade on car roof
- Improved strength of counterweight screen in hoistway pit

## What products are affected?

Both new standards apply for passenger and goods passenger lifts that fall under the Lifts Directive. Therefore, only traction and hydraulic passenger lifts are affected by these changes. These standards do not cover passenger carrying lifts with speeds below 0.15m/s or goods only lifts.

## Which building projects are likely to be affected?

All lifts that are likely to have handover date after the 31st August 2017 should have a lift planned according to EN81-20/50, with this in mind Stannah recommend you begin planning as soon as you can. For specific advice on the changes and how it affects your projects please speak with your local Stannah sales representative, or fill in the [contact form on our website](#).

## What about current projects?

Any lift handed over on, or before, the 31st August 2017 remains unaffected by the change in standards. However, if you anticipate the project slipping close to this date we recommend you plan in accordance with EN81-20/50.

## Do I need to change lifts within an existing building?

No. The new standard only affects lifts installed after the 31st August 2017. These standards describe best practice, with the benefit of improved safety. It is likely that EN81-80, the refurbishment standard will be revised (as others within the EN81 series) in line with the new EN81-20/50 in the future. If you are considering a lift refurbishment the Stannah service team will be able to advise on the latest technology and regulations to update your lift.

## Help. I am not sure I can comply with these new standards?

Compliance with the new EN81-20/50 standards are the simplest way to demonstrate compliance with the Lifts Directive. If your lift handover is after the 31st August 2017 you will be required to demonstrate an equivalent or higher safety than those provided within the standards.

There are likely to be some instances where a lift installation will struggle to comply, for example a new lift in an existing building. If you have any concerns please contact Stannah and we will advise on a case by case basis.

## Summary

- EN81-50:2014 (Safety rules for the construction and installation of lifts) covers the design rules, calculations and test and examination for lift components. EN81-20:2014 (Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods) defines the technical requirements for the construction of lifts. Both these new regulations replace EN81-1 and EN81-2 standards
- The changes in standards provide greater passenger safety and comfort and service engineer safety
- These regulations are likely to affect shaft sizes and there are changes to the lift shaft requirements
- New lifts handed over after the 31st August 2017 must comply with these standards
- There will further revisions within the EN81 series

**For more information and advice in relation to a specific project please get in touch – we'll be glad to help.**

## At a glance...

**SAFETY SPACE:**  
Larger permanent safety space in headroom

**BALUSTRADE:**  
Improved strength and increased height of balustrade on car roof

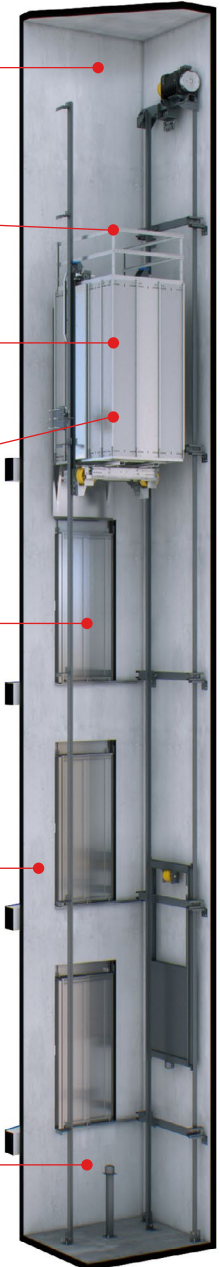
**CAR LIGHTING:**  
Minimum 100 lux at 1m above the floor

**CAR STRENGTH:**  
Extra strengthening on car walls and increased fire resistance

**DOORS:**  
Extra strengthening of car and landing doors

**SHAFT LIGHTING:**  
Minimum 50 lux in working areas

**SAFETY SPACE:**  
Larger permanent safety space in pit





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EN81-20/EN81-50/04/16

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