



# LEIA Safety Information Sheet

## Simultaneous Work in the Hoistway

Prepared by the LEIA Safety and Environment Committee

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## SAFETY INFORMATION SHEET

### SIMULTANEOUS WORK IN THE HOISTWAY

#### PREAMBLE

This Information Sheet is one of a series produced by the LEIA Safety and Environment Committee on topics relevant to the Lift and Escalator Industry. Whilst every effort has been taken in the production of these sheets, it must be acknowledged that they should be read in conjunction with the relevant legislation, codes of practice etc. They should not be taken as an authoritative interpretation of the law but guidance to it.

#### INTRODUCTION

Historically several major injuries and workplace fatalities have occurred in lift shaft hoistway due to the hazards associated with machinery entrapment, machinery impacts, and injuries sustained from falling objects. These hazards are further increase if simultaneous work occurs in multi volume hoistway (duplex, triplex, quadruplex) where full height permanently fixed or temporary hoistway screening is not provided.

#### ACTIONS TO BE TAKEN BY COMPANIES/INDIVIDUALS

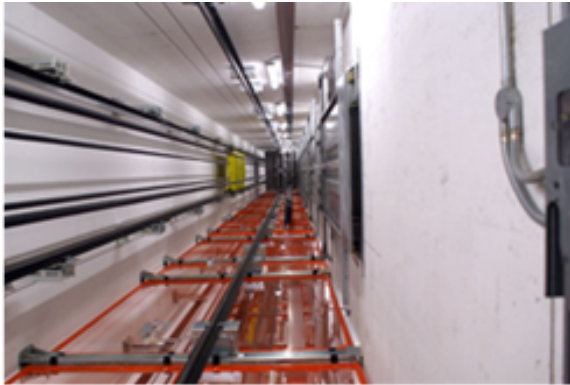
##### Work on multiple installations in a common hoistway

Be sure that you have correctly identified each machine, controller, and isolation switch with its corresponding well.

- In the machine room each unit and its components should have a unique identifier.
- On each landing there should also be identification for orientation.
- The unit being worked upon should have out of service signs posted on each landing served.
- The pit area would also benefit from having an identifier on the E/S or ladder access point.

##### When accessing the pit/hoistway area.

- Accessing a hydraulic pit, the prop should already be deployed where invasive work is being performed, a unit should be secured mechanically.
- Access of any unit car top, pit or hoistway should follow a set routine where two independent circuits are broken as a safeguard regardless of the assumed unit condition.
- If the unit is already Locked Out Tagged Out the activation of the safeguards cannot be verified however pit prop should be in place on hydraulic as it will sink regardless of power.



*Example of full height hoistway division screens*

Full height division screens should be fitted between lifts in a common well.

Where these are not fitted, the adjacent lifts must be switched off and locked and tagged out before entering the well.

Should this not be practicable, extreme care should be taken to prevent serious injury

Safe systems of work must be developed to ensure that the potential for falling object hazards, machinery strikes, machinery entrapments hazards are eliminated.

Consideration also needs to be taken to ensure that operatives working on car tops are not adversely effected by the momentum of other hoistway equipment displacing air as they pass the operative. Fixed or personal fall protection measures must be in place to eliminate the risk of falls from height.

Half-way counterweight screens between the shafts are not now recommended due to the shearing and crushing hazards introduced.

In the pit there should be barriers between shafts at least 2.5m high. Around panoramas there should be balustrades 2.5m high at ground floor level and at every floor they pass through.

### WORK IN THE LIFT PIT

Prior to working on multiple installations in a common pit be sure that you have correctly identified each machine, controller, and isolation switch with its corresponding pit.

In the pit there should be barriers between shafts at least 2.5m high. If there are no barriers between the shafts, switch off the adjacent lifts whenever possible before entering the pit.

Should this not be practicable, then some form of temporary physical barrier should be put in place.

(Refer back to shaft screens)



*Example of division screen in hoistway pit*

## REFERENCES

**BS7255:2012:** -

### **4.17 Working within the well**

#### 4.17.1 General

Control measures should be taken when work is being carried out in the well, for example, re-roping, replacement of trailing flexes, etc., and where full height division screens are not provided between lifts in a common well.

NOTE 1 This may include taking adjacent lift(s) out of service."

#### **EN81-20:**

"5.2.5.5.2.1 This partition shall extend from within 0,30 m from the pit floor to a height of 2,50 m above the floor of the lowest landing.

The width shall be sufficient as to prevent access from one pit to another.

Where the conditions of not giving access to a hazardous zone according to 5.2.3.3 d) are met then such a partition screen shall not be provided below the lowest point of travel of the car.

5.2.5.5.2.2 The partition shall extend through the full height of the well if the horizontal distance between the inner edge of any balustrade and a moving part (car, counterweight or balancing weight) of an adjacent lift is less than 0,50 m."

End.