

# VERTICAL TRANSPORTATION



INSIGHT



**When height and power combine, risk increases, meaning that a high emphasis on safety is paramount in the world of vertical transportation. We want to be reassured that when we step into a lift or onto an escalator, these have been installed to operate safely and without incident.**

Escalators have been around for a long time and England's first escalator was revealed in 1898 at London's premier department store, Harrods. This was a woven leather conveyor-belt unit and passengers were offered brandy at the top to help them recover from their 'ordeal'.<sup>1</sup>

In today's world, lifts and escalators are found in many locations, from shopping centres to

offices, and are used to transport large volumes of people. But other methods of vertical transportation also exist, such as building maintenance units (BMU) used for work such as window cleaning and facade maintenance.

The risks that come with this equipment can be controlled, provided they are installed and used as intended, that there are regular assessments, and that any necessary maintenance is carried out. But as experience has shown, lapses can happen and when there is an incident, it can be serious.

In March 2019, data from Allianz Engineering Construction & Power found that 16% of escalators and moving walkways had a defect which could pose a potential risk to life.<sup>2</sup>

**A TRAGIC INCIDENT OCCURRED IN A GREATER MANCHESTER CARE HOME WHEN A PENSIONER DIED AS A RESULT OF A MALFUNCTIONING LIFT WHICH PLUMMETED TO THE BASEMENT. IT WAS IDENTIFIED THAT AN ISSUE WITH THE DOOR HAD LED ITS DETACHMENT FROM THE RUNNER AND JAMMED THE LIFT SHAFT.<sup>3</sup>**

1 <https://www.technicalafetybc.ca/blog/10-escalator-facts-you-probably-didnt-know>  
2 <https://www.mynewsdesk.com/uk/allianz-insurance/pressreleases/allianz-engineering-construction-and-power-releases-latest-inspection-defects-data-2853365>  
3 (<https://www.manchestereveningnews.co.uk/news/greater-manchester-news/urmston-care-home-kenneth-bardsley-15484603>)



## LEGISLATION DESIGNED TO PROTECT PASSENGERS AND USERS INCLUDES:

- The Health and Safety at Work Act 1974
- The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- The Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Work at Height Regulations
- The Construction (Design and Management) Regulations 2007
- The Work at Height Regulations 2005
- Machinery and Lift Directives – requires new machinery to be designed and constructed to meet common minimum European requirements for safety
- Widely-used guidance (not a regulation) also exists on escalators and moving walks from SAFed.

## DEMONSTRATING SAFETY AND COMPLIANCE

Each situation where a vertical transport system is installed will vary and could range from an escalator at the Underground to a lift within a care home.

To avoid any incidents, it's important that vertical transportation is inspected and tested before it becomes operational.

There's a host of legislation designed to protect both passengers and users of vertical transportation. For example the Lifting Operations & Lifting Equipment Regulations (LOLER) applies to both goods and passenger lifts, with their inspection frequency differing (typically, inspections would be every six months for passenger lifts and every 12 months for goods lifts).

Whilst many of us use vertical transportation frequently in our daily lives, we are probably unaware that they are subject to these stringent health and safety laws.

During the installation of equipment, there is a significant amount of examination and testing which can be completed prior to handover. This is to ensure equipment is fit for purpose, for example the inspection of hidden parts prior to them being encased - and the witnessing of such tests can help provide impartial verification and peace of mind to the purchaser of that equipment.

There are also services that offer a comprehensive review and testing of vertical transportation installations before warranty period expires.

These examinations must be undertaken by a 'Competent Person' – someone who possesses the relevant practical and theoretical knowledge, plus requisite training and qualifications to carry out the inspection and recognise defects.

If there are problems with these complex pieces of machinery these may not always be visible to the untrained eye. Further if there have been no obvious problems, then complacency can set in.

Keeping vertical transportation in safe, working order is imperative and all those responsible for such equipment should ensure that prior to first use and subsequently through its life-span, regular inspection and maintenance activity is undertaken as required. Doing so will minimise the chance of an accident occurring.

**WE OFFER A RANGE OF BOTH INSPECTION SERVICES AND SPECIALIST SERVICES ON BOTH VERTICAL TRANSPORTATION AND LIFT CONSULTANCY THROUGH OUR IN-HOUSE ENGINEER SURVEYORS.**

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