Elevating Standards – How to Ensure Safe and Reliable Lift Operation

Richard Clarke, director at Schindler, the UK’s leading provider of lifts and escalators, looks at some of the key issues surrounding the maintenance and operation of lifts to help ensure the highest standards of safety, reliability and a positive user experience.

Lifts are an important means of transporting users, providing access, and are fundamental to maintaining efficient traffic flows for staff and visitors inside some of the largest and most complex buildings.

The life cycle of a lift is longer than most other forms of transportation and building equipment, which means that lift equipment has to be precisely maintained to ensure ongoing safety, performance, and accessibility.

The Importance of Preventative Maintenance

A preventative maintenance regime is critical to maximising the availability of lift equipment and to ensure it remains compliant with the latest mandatory safety standards and stringent codes of practice.

There have been instances in recent years where there have been prosecutions following avoidable loss of life for failing to adequately maintain lift equipment so the importance of a strict schedule that is appropriate to the use of the lifts cannot be stressed enough.

10 Key Considerations

1. A stringent maintenance programme should be in place for every lift. This means the equipment is regularly checked by a competent specialist and in line with the manufacturer’s recommended schedule.

A regular inspection routine delivered by a competent specialist should give you the assurance of both the relevant technical expertise and the rapid supply of spare parts. These regimes must be specific and tailored to the age, traffic flow, location and vulnerability of the lift. If correctly delivered, a proactive regime will improve life of the lift, extend the time between call backs, maximise reliability, and reduce the risk of accidents and litigation.

How critical is the lift’s use? A passenger bed lift transporting patients to theatre will clearly be more essential equipment and therefore require more frequent inspections than a lift in a car park. Is the lift subject to heavy use 24/7 or is it a low demand unit used from 9am to 5pm as in an office situation? An outdoor lift for a car park will be more exposed to the elements and so will require more regular maintenance and checks.

A good lift maintenance specialist will advise and draw up the most appropriate service schedule for each individual lift to minimise breakdowns.

2. Statutory inspections – lifts carrying passengers require inspection by a ‘competent person’ with a maximum interval of six months between inspections. Goods only lifts must be examined at least every 12 months. This is an important legislative requirement that should be undertaken in accordance with the Lifting Operations &
Lifting Equipment Regulations 1998 (LOLER). Ideally an independent third party would carry out this inspection rather than the maintenance contractor, to avoid conflicts of interest.

Some major lift companies may carry out additional periodic safety inspections to offer further reassurance on performance, reliability and safety.

Other legislation for lift equipment includes:

- Health and Safety at Work Act – safe working for staff and contractors
- PUWER – Provision and Use of Work Equipment Regulations – a lift in a communal area is classed as work equipment
- BS 7255 2012 – best practice for a lift owner and a lift maintenance contractor
- CE Marking – a suite of standards for new lift installations.

3. There are a number of additional checks that facilities managers should also carry out regularly:

- **Ensure the emergency communications system is working at all times.** Check whether there is the facility for automatic remote checking every 72 hours. This is a statutory requirement for new installations but if an existing lift is not equipped, put in place a process for the system to be tested every three days.
- **Lighting should be checked regularly and bulbs replaced promptly.**
- **Check the levelling of the lift.** The lift threshold should be level with each floor it opens out on to. Any significant variation will create a serious trip hazard. New lifts are designed to allowable tolerances of +/-6mm whereas existing installations have tolerances of +/-12mm. Lifts can also move over time.
- **Make sure the door tracks are kept clear.** The most common cause of breakdown is the doors failing to open or close. To help avoid this, the building’s cleaning regime should include vacuuming out and regular cleaning of the tracks.
- **Carry out regular checks on door safety devices.** These features ensure the doors reverse if an obstruction is detected, to prevent injury.

4. How to select a lift maintenance company:

- Assess the company’s technical competence. Be aware that not all service providers have the same levels of competence or familiarity with your equipment.
- It is usual for a lift servicing company to maintain equipment supplied by another lift manufacturer.
- Ensure the service provider has the resources and local capacity for the frequency of maintenance needed – this will vary according to location and usage.
- Maintenance contracts are typically in place from one to five years but could be fixed on PFI projects for up to 25 years. Contracts vary in coverage, from maintenance only to including all replacement parts and breakdown costs.

5. When specifying new equipment, look at the manufacturer’s policy on available parts for products that have been superseded or for when that model is no longer available.

Schindler, for example, warrants that parts for its lifts will be available for a minimum of 15 years after a product ceases to be manufactured. We have seen situations where companies have stopped supplying parts after just six months and lifts have
had to be replaced after only two years because parts were no longer available.

6. Make sure each lift is used only for the purpose it was designed for. Is it designed to take trolleys, for example? If not, it will be more susceptible to damage and breakdown. And be aware that if a building is reconfigured, are the lifts still fit for purpose? The equipment may need upgrading to ensure continuity of service.

7. To reduce the risk of injury, consideration should be given to enhancing older lifts with multi-beam, non-contact safety edges to the doors. Some door edges have green and red warning lights to show when the doors are closing and when it is safe to enter. Enhanced levelling systems can also deliver improved level access into and out of the lift car and reduce trip hazards.

8. Typically lifts are designed for use from 15 to 25 years although there are instances, for example in interim buildings, where a lift may only be required for five years or less. The lift should be adequately maintained, small repairs carried out and parts replaced as needed. It may then be necessary to upgrade the lift equipment to bring it up to modern standards or it could be more cost effective to replace the equipment with new.

9. Lift technology is continually evolving. Some advanced features could be retro-installed, such as emergency communications systems. Whilst these are not statutory requirements for existing installations, it is good practice to have them installed. The risk of claims can be minimised by having the appropriate safety equipment in place – such as passenger detectors on doors. One single claim can be higher than the cost of fitting a safety device!

A good maintenance contractor would carry out a risk assessment and can advise on enhancements to improve safety in operation.

10. Compliance with EN81 part 70 is a statutory requirement for new lift installations to ensure accessibility for disabled people. This is recommended but not compulsory for existing lifts. There may be a need to add features such as a permanent chair, hand rails, audible communications for partially-sighted people, visible indicators for passengers with hearing difficulties, and to ensure adequate car sizes for wheelchairs.

Maintaining the Highest Standards of Lift Safety

When undertaking any service or maintenance work on lift equipment, the facilities manager must ensure safe access for contractors at all times. Health and safety regulations apply to all aspects of a building, including lifts.

Advancements in lift technology mean equipment is now designed for safety during maintenance or repair so there are switches, locks and power isolators in place. The older the lift equipment, the fewer safety devices there will be. The lift owner should be aware of this potential risk and put procedures in place to ensure safe working.
The Importance of User Education

Educating users of lifts is really important. Door strikes most commonly occur when a passenger’s hand is stuck between two doors when that person has tried to enter a lift too late. Good quality safety edges to the door should prevent that until there is a gap of around four inches – passengers should then know better than not to try to force entry.

Forcing open and hitting the car doors, for example with trolleys, will cause electronic components to miss-align which is the single most frequent cause of lift breakdowns. User education can help prevent this.

Lift users should never interfere with lift equipment. It is definitely the case that the number of lift breakdowns can be reduced by users taking more care. Debris and litter should also be kept well away from a lift. Debris gathered in the lift pit will take additional time and therefore cost for the maintenance specialist to clear.

Passenger Release

How passengers are to be released in the event of lift doors failing to open is another key issue. Ideally, an alarm system should be connected to a communications centre or a working telephone line operated 24/7. The maintenance specialist should be automatically contacted, and staff will know the lift number and exact location to despatch an engineer.

However, there is an increasing trend for organisations asking for local staff to be trained in lift release but our experience has shown that their depth of knowledge will be very limited and in some situations that lack of competency could make a situation much worse.

For further information about Schindler lifts and escalators, call 01932 758100, email info@gb.schindler.com or visit www.schindler.com.