

Customer Information - Lift Fire Safety – What is the difference between a Fireman’s Lift and a Firefighting Lift?

Overview

There is very often confusion between firefighting lifts, fireman’s lifts and their roles within a building. It is very important to recognise the difference between these two types of lift and how they operate, as they are quite different.

This Customer Information sheet has been written to help the Responsible Person(s) identify the type of lift fitted within their properties; the attributes required for each; and provide a summary of the correct testing and maintenance regimes that should be followed.

Firefighting / Firefighter’s Lifts

Firefighting lifts - and their shafts, are designed and installed to provide a safe route within larger buildings; to help firefighters reach floors further away from the building’s access. They are positioned to enable firefighting operations to move quickly - and in comparative safety to the location of a fire from the building entrance.

Since 2001, any building with a floor level more than 18 metres above - or more than 10 metres below; the Fire and Rescue Service vehicle access level, should have one or more firefighting lifts contained within a firefighting shaft. Access to a firefighting lift must be via a protected firefighting lobby.

British Standard EN81-72, 2020 provides the description - and latest regulations for a firefighter lift. These are also described within the Approved Document B of the Building Regulations: Fire Safety as “A lift with additional protection and with controls that enable it to be used by the fire and rescue service when fighting a fire.”

A firefighter lift is required to have a minimum capacity of 8 persons - or 630kg; and - in the event of a fire; is designed for exclusive use by fire services to carry firefighters and their equipment to the scene of the blaze with minimum time and effort. The firefighter lift must include the following features:

- Interface between the lift control and the fire detection and alarm system.
- Trap doors and ladders for rescue operation.
- Electrical components within the shaft and on the lift car are protected against water ingress.
- Emergency Intercom system and lift operation.
- A separate power supply (from other lifts) with standby “back-up” supply to enable the lift to remain in use during emergency operation.
- Provision to limit water ingress to the lift shaft

While a firefighter lift can be integrated to operate with other lifts in a building under normal operation - unlike a standard passenger lift; it is designed to operate so long as it is practicable when there is a fire within the building.

Firefighting lift(s) should not be used to evacuate persons as part of a Personal Emergency Evacuation Plan (PEEP’s). The lift must be operated under the control of the fire safety manager - or a delegated representative,;or otherwise by someone trained and authorised in the use of the lift (persons contracted to work on behalf of the landlord); as defined under BS 9999.



The designated firefighter lift may be used under normal passenger operation by the occupants of the building. Care must be taken to prevent the risk of any lift entrance being obstructed on the firefighting lift so that it is available when required to go into “fire-fighting” operation. It is therefore essential that it is not used for moving refuse or goods.

In buildings where there is only a single lift; transport of goods needs to be avoided wherever possible. If the lift has to be used for moving goods, correct management routines must be applied with close control; to ensure lift lobbies are being kept clear and that doors are not propped open under any circumstances.

Firefighting lift installations must conform to BS EN 81-72 and BS EN 81-20 with regular testing and maintenance of firefighting lifts in accordance with BS EN 81-72 / BS 9999. These tests can be summarised as:

- Operation of the firefighters lift switch (typically weekly) to check the lift returns to the fire service access level; parks with its doors open, and that the lift does not respond to landing calls.
- If the lift is connected to a building management system (BMS) or fire detection system, a check (normally weekly) should be conducted to make sure that the lift responds to the instruction from the BMS or fire detection system.
- Simulation of a failure of the primary power supply (typically monthly) to check the automatic changeover to the secondary supply and operation of the lift from this secondary supply. If the secondary power supply is via an emergency generator, this should be designed to be capable of operating the lift(s) for at least one hour.
- A full test of the firefighters lift operation (typically annually) and organised by the Responsible Person with the lift maintenance contractor. This check should test all operating features, including:
 - Initiation from the firefighters lift switch and BMS/fire detection system, operation from the secondary supply and check of the full firefighting facilities, including communication systems. This test should demonstrate the lift can be driven to any required floor and that on arrival to that floor, the doors only operate and open when instructed manually and then the lift remains parked with its doors open.
 - Checks should be made of the building-related requirements, including the measures designed to prevent water ingress into the lift well and/or measures to address and remove water ingress into the lift well; including the operation of any pumps used to control the level of water in the lift pit.

As a result of this annual test, the lift maintenance contractor should provide the Responsible Person (Owner or Facilities Manager for the site) with a record confirming the correct operation of all aspects of the firefighter lift(s) including the communication systems. If any element of the installation fails the test, the lift maintenance contractor should advise the Responsible Person of what repairs are required i.e., change components or parts to ensure the availability, reliability, and correct operation of the lift in the event of fire.

The lift maintenance contractor should also advise the Responsible Person of any change in standards relating to lifts in service; particularly to lifts for operation in the event of fire.

As a result of the Grenfell Tower inquiry, a recommendation which is expected to be passed into the UK Statutes is that the Responsible Person (i.e owners and managers of high-rise residential



buildings); carry out regular monthly inspections of any lifts designed to be used by firefighters in an emergency, and to report the results to their local fire and rescue service. While the thorough examination and maintenance of firefighter lifts is already required by law, this is the first time the recommendation to report the result of these inspections to local fire and rescue services is being made.

Fireman's lifts

Fireman's lifts have been supplied into UK buildings for many years with their function formalised under BS-2655 in 1970 until the introduction for the requirement of firefighting lifts in 2001.

A fireman's lift is normally a "designated" regular passenger lift which includes a fireman's operation feature. A fireman's lift is installed with a fireman's control function which is operated from a 'fireman's' override control switch normally provided at ground or main access floor level.

The override switch is used by the attending Fire & Rescue Services to assume control of the defined fireman's lift(s) and operation of the override control switch may be accessed via the following:

- A switch located behind a break glass panel.
- A Crescent or Yale type key switch, a Triangle key, Budget key or most commonly a Drop key.

The use of these fireman override systems has evolved over many years and therefore the corresponding lift operation upon using the override switch can vary from one building to another.

The most common fireman's lift operation is:

- Isolate all call buttons and override all car and landing floor calls already logged in the lift control system.
- Return the lift car to the ground or main access floor (where the fireman's switch is located) with the doors parked open.
- Fire service personnel then have total control of the lift operation and can use the unit to access the building through use of the lift car buttons only.
- In comparison to firefighting lifts, a fireman's lift will not have the same protected access; structural protection; control procedure and may or may not have a communication system or secondary back-up power supply.

A Fireman's lift(s) should not be used to evacuate person(s) as part of a Personal Emergency Evacuation Plan (PEEP's); since the lift must be operated under the control of the attending Fire & Rescue Service.

The testing and maintenance of fireman's lifts should be in accordance with BS 9999. The operation of the fireman's lift override switches should be tested once a week; and the operation observed to ensure the designated fireman's lift car is under control.

The Responsible Person should request the lift maintenance provider repair or replace any components if the declared Fireman's operation is found to be faulty.

If you are unsure or require confirmation of the type of "FIRE" designated lift within your building, your lift maintenance provider can determine its operation, function and eliminate any confusion that may exist. The Responsible Person should instruct a lift maintenance supplier to provide formal confirmation as to whether the lift is a firefighting lift or a fireman's lift. This information must then be kept on-file or in the fire logbook for future reference.



Classic Lifts Limited have a wide experience and understanding of the different types of lifts - and technologies supplied by all major Lift manufacturers into the UK Market. This deep knowledge ensures we can provide you with expert advice on this and other topics.

Our Regional Offices are at your disposal to answer any questions on this subject and support any enquiries you may have. Our Technical Directors are also on hand to provide detailed expert information and technical support on lift systems and service.

To contact us go to <https://www.classiclifts.co.uk>

Established in 1990, Classic Lifts Ltd is a UK-based, independent life company that provides professional lift maintenance, repairs, modernisations and new installations across the UK.

