

Thank you for joining us

Fire Safety England Regulations 2022

The presentation will begin shortly...

FIRE RELATED LIFTS

STANDARDS AND LEGISLATION

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BSC(Hons), MSc, MPhil, CEng, FCIBSE, FIET, FSOE, MIMechE, FCGI



You lucky sod - we have to use the stairs

A BIT OF HISTORY

In 1930 it was recognised firefighters should be provided with a means of swift access to the upper floors of large buildings beyond the height of their ladders.

Resulted in passenger lifts being fitted with a break-glass key switch which firefighters could operate to bring the lift to that floor quickly.

Minimum Requirements for such lifts were: -

- Load capacity of at least 1200 lb (550 kg)

- Sufficiently fast to travel the height of the building in less than one minute

- Power-operated doors 2ft 9 in (800 mm) wide

Additional requirements were gradually added: -

- Fire resistant landing doors with normally one hour rating

- Local authorities imposed further specific requirements i.e. Section 20 of the London Building Acts 1939



A BIT OF HISTORY



Common standards for lift were formed into BS 2655:Part 1:1970, which specified requirements for 'firemen's lifts'.

This standard was superseded in 1979 by BS 5655-1 with a larger car size and improved protection by the building of firemen's lifts.

Published in 1986, BS 5588-5, included the first requirements for firefighting lifts (Revisions updated in 1991 and 2004)

In 2008, its content was incorporated within BS 9999. BS 9999 no longer contained requirements for the design of firefighters lifts;

A BIT OF HISTORY

These were included in BS EN 81-72:2003 - the first European standard for firefighters lifts.

Since then, BS 9991 was published to cover residential buildings in 2011.

BS EN81-72 was further updated in 2015 and 2020.



BS EN 81-72:2020



BSI Standards Publication

**Safety rules for the construction and
installation of lifts – Particular applications
for passenger and goods passenger lifts**

Part 72: Firefighters lifts

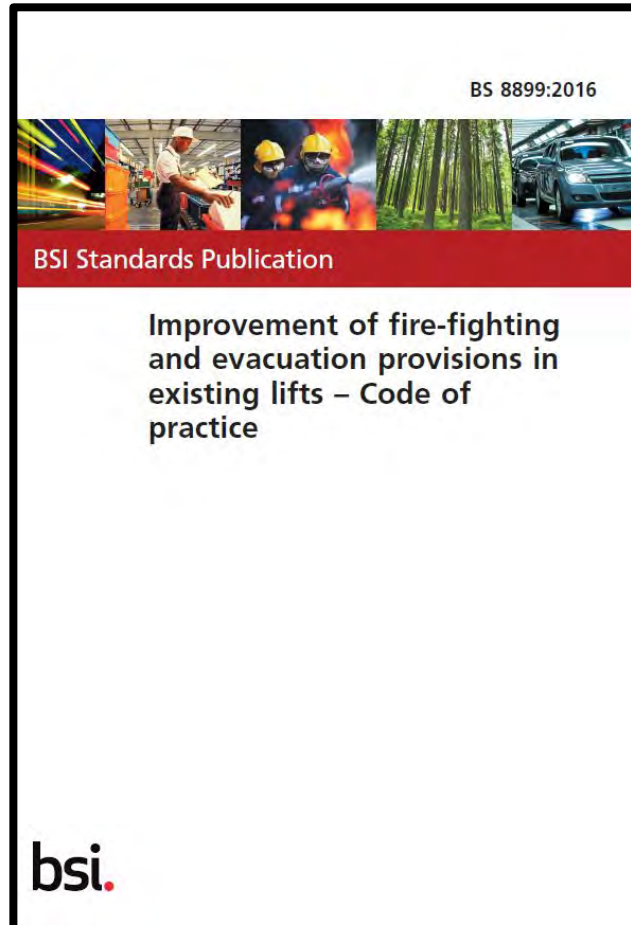
FIRE SAFETY (ENGLAND) REGULATIONS 2022

For lifts which fall under **The Fire Safety (England) Regulations 2022 (FSER)**, the responsible person must undertake routine checks of any lift that is for use by firefighters and evacuation lifts.

These are checks that the lift is in efficient working order and in good repair and intended to be carried out by the responsible person without the need of specialist personnel.

These includes weekly, monthly checks and an annual performance inspection.

WHEN MODERNISING.....



- Notice this is a BS and not a BS EN standard.

FIREMANS LIFT

A "fireman's lift" is now an obsolete term but the facility is often retained on older lifts that are being modernized or upgraded and have the facility.

System is extremely simple in that there is a switch at the main floor which when operated: -

- Causes the lift to stop at the next floor if it is in travel, not open its doors
- Illuminates an indicator in the lift car stating "fire recall service"
- The lift returns to the floor where the switch is located and parks with its doors open
- The lift will then only respond to a call placed on the system within the lift car and will go to that floor and park with its doors open

The system can be specified for new lifts or those being modernised but must not be confused with a firefighting lift.

FIRE FIGHTING LIFT

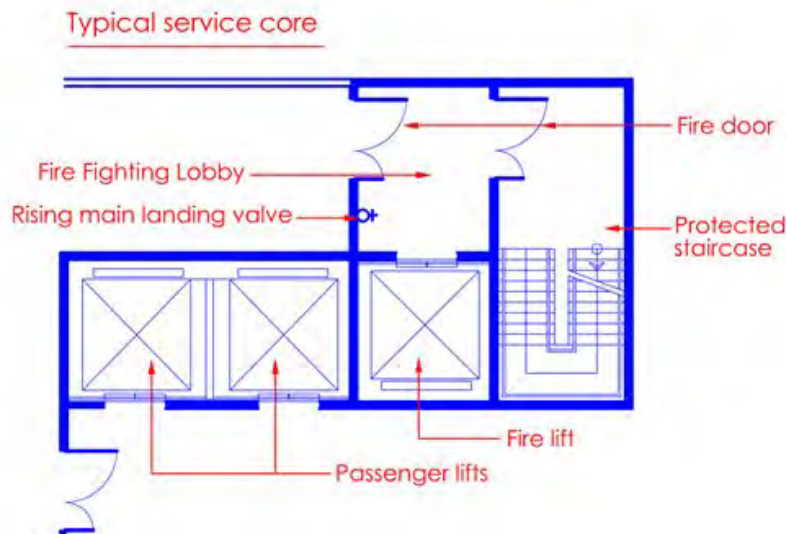
A "firefighting lift" is a completely different animal!

The firefighting lift must have the following features as a minimum: -

- Minimum 630 kg / 8 person lift car
- Minimum car interior size of 1400 mm x 1100 mm
- Must travel the height of the building in less than 60 seconds
- Automatic power operated doors, at least 800 mm wide and 2000 mm tall
- Position indicators fitted inside the lift car and at the FSAL (Fire Service Access Level)
- Two way intercom provided between the machine room, lift car and FSAL
- An emergency trap door provided in the car roof with minimum size 400 mm x 500 mm
- The lift must not be used for goods transportation



FIRE FIGHTING LIFT



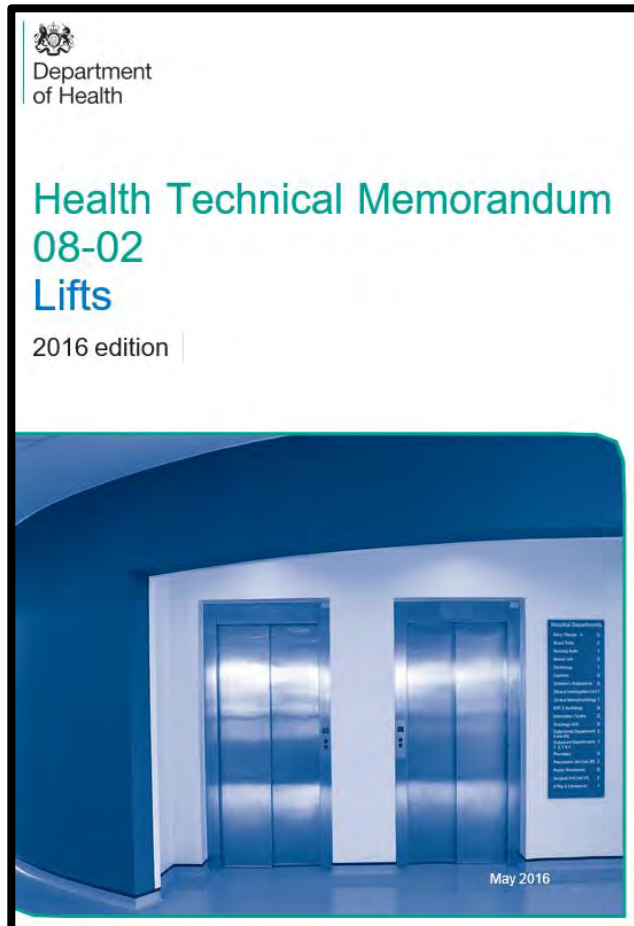
- Rescue shall be available from both inside and outside the lift car
- Buttons shall be protected against water ingress
- Electrical equipment in the shaft shall be protected against water ingress
- An audible fire alarm must be fitted to alert a maintenance operative of the firefighting need
- A secondary power supply must be provided
- The shaft must be protected from water ingress by drains and/or ramps
- A "peek a boo" control system when on fire fighting mode
- The car interior components shall be a minimum of class 0 resisting combustion
- The lift must have fire rated doors
- The lift must be within a separate fire compartment
- Shaft smoke ventilation should be provided

EVACUATION LIFTS

- At present there is no standard for evacuation lifts
 - EN81-76, the intended standard, was never finalised but is now being revisited
 - The London Building Plan mentions the requirement to comply with EN81-76 but unfortunately the standard was never published
-
- It is **NOT** for a lift engineer to advise on the requirements for evacuation or an evacuation lift
 - This is a specialist job to be undertaken by evacuation professionals in conjunction with the lift engineers



HOSPITALS

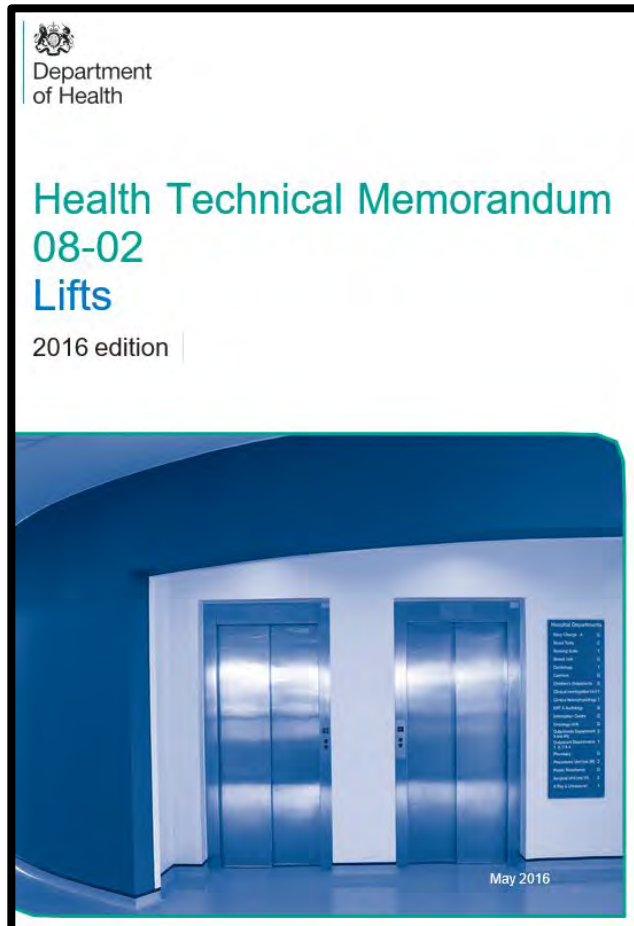


Attention is drawn to HTM 05 Fire Safety

Escape lift: A passenger lift protected in accordance with Health Technical Memorandum 05-03 Part E –‘Escape lifts’ to enable it to be used to safely transport staff, patients and visitors to the ground floor in the event of a fire.

Firefighters lift: A lift with protection measures, controls and signals that enable it to be used under the direct control of the fire and rescue service in fighting a fire.

HOSPITALS



Training in the use of equipment will be by the Authorised Person (Lifts) and by the site Fire Safety Adviser in relation to the emergency evacuation duties

Training (where applicable) should take into account the description of the operation of the lift and its features as described in the lift owner's manual provided for each new lift

(see Health Technical Memorandum 05-03 Part E – 'Escape lifts' for full details)

LIFTING OPERATIONS & LIFTING EQUIPMENT REGULATIONS 1998

(3) Subject to paragraph (6), every employer shall ensure that lifting equipment which is exposed to conditions causing deterioration which is liable to result in dangerous situations is:

(a) thoroughly examined;

(i) in the case of lifting equipment for lifting persons or an accessory for lifting, at least every 6 months;

(ii) in the case of other lifting equipment, at least every 12 months; or

(iii) in either case, in accordance with an examination scheme; and

(iv) each time that exceptional circumstances which are liable to jeopardise the safety of the lifting equipment have occurred; and

(b) if appropriate for the purpose, is inspected by a competent person at suitable intervals between thorough examinations, to ensure that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time.



So hopefully.....

- You can now identify what type of lift you have
- You have an idea of some of the standards and legislation that apply

Checks and inspections of lifts used by firefighters, evacuation lifts and lifts-with fire recall.

Andrew Harrison – Technical Director – Classic Lifts Ltd

Expertise, built in.

Why are we here?

The Fire Safety (England) Regulations 2022 (FSER)

This Regulation makes it a **legal** requirement from 23 January 2023 for responsible persons in high-rise residential buildings to undertake additional monthly checks of any lifts within the building that are designed, installed and maintained to be used by fire-fighters (with the addition of evacuation lifts)

<https://www.gov.uk/government/publications/fire-safety-england-regulations-2022>

FSER Point 7

1. The responsible person in relation to a high-rise residential building must undertake monthly routine checks of lifts for use by firefighters, evacuation lifts and essential fire-fighting equipment within the building.

We will discuss the required Checks and the identification of different types of Fire Lifts later in this presentation.

FSER Point 7

2. Where the responsible person identifies any fault with a lift for use by firefighters, evacuation lift or piece of essential fire-fighting equipment, the responsible person must take steps to rectify the fault.

This would normally involve reporting the fault to the maintenance company

FSER Point 7

3. Where a fault identified under paragraph (2) cannot be rectified within a 24-hour period beginning with the time the fault is identified, the responsible person must, as soon as reasonably practicable—

(a) report the fault to the local fire and rescue authority by electronic means; and

(b) report the rectification of the fault to the local fire and rescue authority by electronic means when it has been rectified

Link to National Fire Chiefs Council FSER Reporting page.

[templates for reporting faults and rectifications](#)

FSER Point 7

4. The responsible person must make a record of the monthly checks undertaken pursuant to this regulation and make that record accessible to the residents of the building

FSER

Definitions

“responsible person” is a person or persons responsible for, or having effective control over, fire safety provisions adopted in or appropriate to the premises or building or risk where a lift is installed.

<https://www.gov.uk/government/publications/check-your-fire-safety-responsibilities-under-the-fire-safety-england-regulations-2022/check-your-fire-safety-responsibilities-under-the-fire-safety-england-regulations-2022#responsible-persons>

FSER

Definitions

“high-rise residential building”

if either of the following circumstances apply:

the building is at least 18 metres above ground level, measured from the lowest ground level adjoining the outside of the building to the height of the floor in the top storey (ignoring any top storey that contains only plant or machinery);

or

the building is seven storeys or more, excluding any storeys below ground level).

FSER

Definitions

“routine check” means a check that any lift or piece of equipment is in efficient working order and in good repair, carried out in accordance with the relevant industry standard or any recommendations made by the manufacturers of equipment within an operators’ manual.

Routine Checks

You must undertake monthly routine checks of all lifts that are intended for use by firefighters.

Similarly, you must undertake monthly checks of any evacuation lifts that are provided for the evacuation of disabled people in the event of fire.

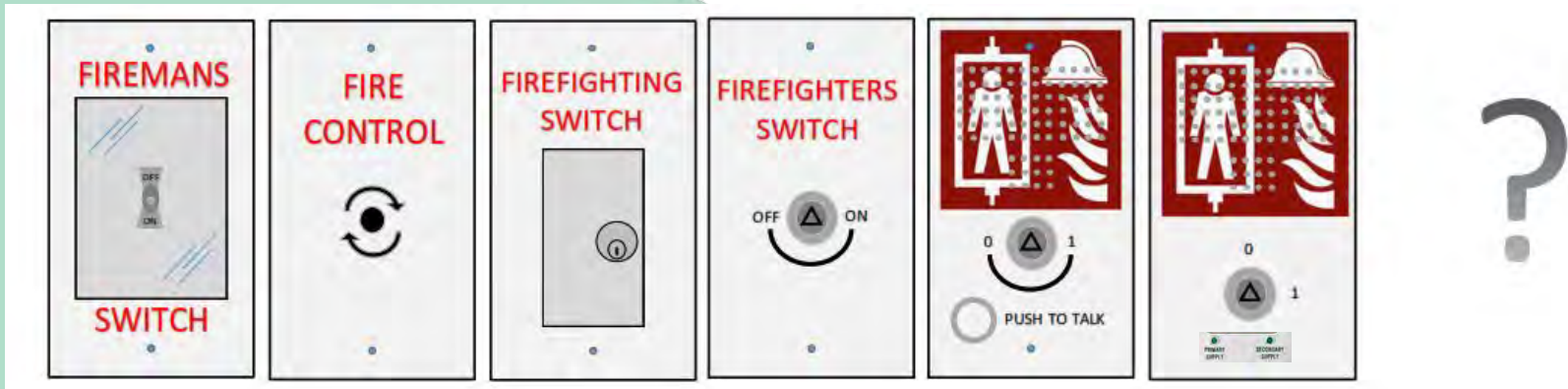
It is not envisaged that any of the above checks will need to be carried out by specialists or contractors

These checks are in addition to the servicing and maintenance of the systems

Routine Checks

How do you know what Routine Checks are required?

Identify the equipment you have installed in your building.



It may not be immediately obvious what features are present on a lift for use by firefighters. The above are examples of types of switches that may be found at the Fire Service Access Level (FSAL), and each may have different features.

Routine Checks

Where a lift for fire service use needs to be classified, a full check of the lift features using BS 8899, Annex A; **should be undertaken by a competent person.**

This is something Classic Lifts can assist with.

Annex A; Also lists environmental/building requirements which must be checked by the building's responsible person.

Routine Checks

Until reporting templates for these checks are formally included in BS 8899, the following may be used as a basis:

The next few slides show examples of Routine Check recording templates.

These Templates have been produced by LEIA The Lift and Escalator Industry Association. The link below takes you to their website which provides excellent information for lift owners and responsible persons.

<https://www.leia.co.uk/technical/leia-newsletter-2/>



Routine Check Report

Lifts with Fire Recall only

Appendix 1: Routine check report - Recall operation

To be used for lifts fitted with a recall feature to recall the lift to a designated landing and remove the lift from service.

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Does the building fire detection and alarm system or building management system (BMS) signal for recall function correctly?		N/A	Yes No
b) Does any manual recall device function correctly?		N/A	Yes No
c) Does the lift recall to the primary designated floor when signalled?			Yes No
d) Does the lift recall to the alternative designated floor when signalled?		N/A	Yes No
e) Upon arrival at the designated floor, the doors open to allow passengers to exit?			Yes No
f) Do the doors remain open or closed when idle at the designated floor?		Open / Closed	
g) Does the lift remain removed from normal service until the recall means (a or b) is reset?			Yes No
If the answer to any question is "No" provide further information here, together with any corrective action required.			
Notes			
Name of company representative making the inspection (Print):.....			
Signature:		Date: / / .	

Routine Check Report

Lifts for use by Firefighters

Appendix 2: Routine check report – Lift for use by firefighters

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Does the lift return to the FSAL when the firemen's/firefighting/firefighters lift switch is operated?		Yes	No
b) Upon arrival at the FSAL, does the lift park with its doors open?		Yes	No
c) Are the landing calls disabled?		Yes	No
d) Does the lift car operate from the controls within the lift car, allowing the lift to be taken to an upper level?		Yes	No
e) Upon arrival at the selected floor, do the doors operate as specified?		Yes	No
f) Place a call to take the lift car back to the FSAL. Does the lift return to normal if the car is at FSAL, and the firemen's/firefighting/firefighters lift switch is turned back to its 'normal' inactive position?		Yes	No
If the answer to any question is "No" provide further information here, together with any corrective action required.			
Notes:			
Name of company representative making the inspection (Print):.....			
Signature:		Date: / / .	

Routine Check Report

Evacuation Lifts

Appendix 3: Routine check report – Evacuation lift

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Does the lift return to the final exit level when the evacuation switch is operated?		Yes	No
b) Upon arrival at the final exist level, does the lift park with its doors open?		Yes	No
c) Are the landing calls disabled?		Yes	No
d) Does the lift operate from the controls within the lift, allowing the lift to be taken to any upper level?		Yes	No
e) Upon arrival at a selected floor, do the doors park in the open position?		Yes	No
f) Does the lift return to normal if the car is at the final exit level, and the evacuation switch is turned to its normal position?		Yes	No
If the answer to any question is "No" provide further information here, together with any corrective action required.			
Notes:			
Name of company representative making the inspection (Print):.....			
Signature:		Date: / / .	

Routine Check Report

**Failure of the primary power
supply**

Appendix 4: Failure of the primary power supply check report

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Is the lift operational on its normal (primary) power supply?		Yes	No
b) Have appropriate steps been taken to prevent the lift being used?		Yes	No
c) Does the secondary power supply energize when the primary supply is switched off?		Yes	No
d) Do any status indicators e.g. at the fire service access level indicate when the lift is fed from the primary and secondary supplies?	N/A	Yes	No
e) Is the lift operational on its secondary power supply?		Yes	No
f) If the secondary supply is by generator, does it run correctly for a minimum period of 1 hr?	N/A	Yes	No
g) Follow item b), and upon re-energising the primary supply, does the lift switch back to the primary power supply and is the lift operational?		Yes	No
h) If generator, check it is not overdue a maintenance visit and has sufficient fuel?	N/A	Yes	No
<i>It is recommended that any other maintenance checks, as recommended by the generator manufacturer/ supplier, are carried out at the same time.</i>			
If the answer to any question is "No" provide further information here, together with any corrective action required.			
Notes			
Name of company representative making the inspection (Print):			
Signature:		Date: / / .	

Annual Inspections

Fire Fighters Lift Operational Inspection Report

Appendix 5: Firefighters lift operational inspection report

(Page 1 of 2)

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Does the lift recall to the FSAL without undue delay from the firefighters lift switch?	Yes	No	
b) Upon arrival at the FSAL, does the lift park with its doors open?	Yes	No	
c) Are the landing calls disabled?	Yes	No	
d) Is the fire-fighting pictogram / indicator illuminated within the lift car?	Yes	No	
e) Is the lift Position displayed within the Lift and at the FSAL?	Yes	No	
f) Is the lift well (and where applicable, the machine room) illuminated?	Yes	No	
g) Voice communication system between Lift, FSAL and emergency panel operational?	Yes	No	
h) Constant pressure is required on any car call button to close doors?	Yes	No	
i) The doors re-open if car call button released before the doors are fully closed?	Yes	No	
j) Devices that could be affected by heat/smoke disabled (i.e. infrared devices)?	Yes	No	
k) Arrives at selected floor without opening doors?	Yes	No	
l) Constant pressure on 'door open' to open doors?	Yes	No	
m) Doors immediately re-close if door open released before 50mm of fully open?	Yes	No	
n) Lift recalls to FSAL if firefighters switch is turned to 0, then back to 1?	Yes	No	
o) Lift only returns to normal if car is at FSAL, and firefighters switch turned to 0?	Yes	No	
p) Visual inspection of lift well components to ensure water ingress prevention measures are still suitable (i.e. covers fitted to lift equipment)	Yes	No	
q) Visual inspection of lift pit components to ensure water ingress prevention measures are still suitable (i.e. correct glands fitted)	Yes	No	
r) Was it possible to check the lift operation on the secondary power supply?	Yes	No	
s) If the answer to r) was "YES", does the lift remain operational within 1 floor of re-energizing the primary power supply?	N/A	Yes	No

t) Is the lift connected to fire alarm or building management system (BMS) for phase 1 recall?	Yes	No
u) If the answer to t) was "YES", does it recall to the FSAL when signalled by the fire alarm/ BMS?	N/A	Yes No
v) If the answer to t) was "YES", does it remain out of service until the firefighters switch is operated?	N/A	Yes No
w) Check the emergency trap door can be unlocked from within the lift car with a triangular key and opened, when open a contact is broken preventing car movement, and when re-closed a positive action is needed before the lift can run again?	N/A	Yes No
x) Were any other special features checked (list below)?	Yes	No

If the answer to any question is "No" provide further information here, together with any corrective action required.

Any additional special features that have been checked, e.g. water management systems:

Notes:

Name of company representative making the inspection (Print):

Signature:

Date: / / .

Annual Inspections

Evacuation Lift Operational Inspection Report

Appendix 6: Evacuation lift operational inspection report

To be used for lifts fitted with an evacuation lift switch to recall the lift to the final exit level and then be available for use.

Name and address of the company making the inspection			
Client name/ address (or contact details)			
Building name and address			
Lift serial number		Date of inspection	/ /
a) Does the lifts return to the final exit level when the evacuation switch is operated?		Yes	No
b) Upon arrival at the final exit level, does the lift park with its doors open?		Yes	No
c) Are the landing calls disabled?		Yes	No
d) Will the lift operate from car calls only?		Yes	No
e) Upon arrival at the destination floor, do the doors park open?		Yes	No
f) Has a communication system been provided as part of the lift system?		N/A	Yes No
g) Is the communication system operational?		N/A	Yes No
h) Was it possible to check the lift operation on the secondary supply?		Yes	No
i) Were any other special features checked (list below)?		Yes	No
If the answer to any question is "No" provide further information here, together with any corrective action required.			
Notes			
Name of company representative making the inspection (Print):.....			
Signature:		Date: / / .	

Overview

From the 23rd January 2023

In respect to Lifts which are used by Firefighters or for Evacuation, the Responsible Person needs to:

1. Undertake monthly routine checks of lifts for use by firefighters and evacuation lifts.
2. Take steps to rectify any faults which are identified.
3. Notify the local fire and rescue service when a lift for use by Firefighters or for evacuation is out of service for more than 24 Hours.
4. Make a record of the monthly checks undertaken and make that record accessible to the residents of the building.

Question and Answers.

<https://www.classiclifts.co.uk/customer-information/>

andrew.harrison@classiclifts.co.uk



Thank you for your
time

Expertise, built in.