

EXAMINATION REPORT FOR ELECTRIC LIFTS

1. Description of Installation

Location (Address) _____
 Brand _____ Model _____ Lift No. _____
 Lift Location ID _____ Length of Travel _____ m
 Passenger Lift Freight Lift Vehicle Lift Platform Lift Stairlift
 Levels Served _____
 Rated Load _____ kg _____ Person Rated Speed _____ m/s
 Power Supply at Time of Test _____ Volt _____ Phase _____ Hz
 Levelling tolerance \pm _____ mm Number of Starts _____ /hr
 Car Floor Area _____ m²
 Machine Room Location: *above lift well / below lift well / at side / others _____
 Is this a fireman's lift? Yes No
 Is this lift for persons with a disability? Yes No
 Model No. and Name of Manufacturer of the Controller _____

2. Static Examination – Mechanical

2.1 Suspension

- (a) Suspension Ropes
 Certificate No. & Date of Issue _____
 Number _____ Nominal Diameter _____ mm
 Have the suspension ropes attained the criteria for replacement in accordance with Clause 5.4.7 of the Works Code? Yes No
- (b) Type of Anchorages: Car _____
 Counterweight _____
 Have the anchorages been examined and found in good working condition? Yes No

2.2 Safety Gear

- (a) Has the safety gear been certified in accordance with Clause 5.11.1 of Part 1 of the Design Code? Yes No
- (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____

2.3 Energy Dissipation Buffer *N.A. / Fitted

- (a) Have the buffers been certified in accordance with Clause 6.2.1 of Part 1 of the Design Code? Yes No
- (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (c) Is the buffer switch functioning properly? Yes No

2.4 Energy Accumulation Buffer *N.A. / Fitted

- (a) Have the buffers been certified in accordance with Clause 6.2.1 of Part 1 of the Design Code? N.A. Yes No
- (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (c) Do the buffers comply with Clause 6.2.2 of Part 1 of the Design Code? Yes No

2.5 Brake

Does the brake sustain the static car, in the lower part of its travel, with the 125% of the rated load (passenger / general freight lifts) or 150% of the rated load (vehicle lifts / industrial truck loaded freight lifts)? Yes No

2.6 Overspeed Governor

- (a) Has the governor been certified in accordance with Clause 5.12.1 of Part 1 of the Design Code? Yes No
- (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (c) Is the data plate in accordance with Clause 11.6 of Part 1 of the Design Code? Yes No
- (d) Does the governor rope conform to Clause 5.12.6 of Part 1 of the Design Code? Yes No
- (e) Is the governor rope slack switch working properly? Yes No

2.7 Door Locking Device

- (a) Has the landing door locking device been certified in accordance with Clause 3.7.3.1 of Part 1 of the Design Code? Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (b) Does the car door locking device comply with Clause 4.7 of Part 1 of the Design Code? Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____

2.8 Ascending Car Overspeed Protection Means

- Has the ascending car overspeed protection means been certified in accordance with Clause 5.13.11 of Part 1 of the Design Code? N.A. Yes No
- (a) Overspeed Governor
- (i) Is the Overspeed Governor using the one as mentioned in item 2.6 ? (If 'Yes', skip the following and go to item 2.8 (b).) Yes No
- (ii) Has the governor been certified in accordance with Clause 5.12.1 of Part 1 of the Design Code? Yes No

* Delete whichever is not applicable

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- (iii) Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (iv) Does the data plate comply with Clause 11.6 of Part 1 of the Design Code?
 Yes No
- (v) Does the governor rope conform to Clause 5.12.6 of Part 1 of the Design Code?
 Yes No
- (vi) Is the governor rope slack switch working properly? Yes No
- (b) Speed Reducing Element
- (i) Type: Car Safety Gear (acting upwards) Brake on Sheave
 Counterweight Safety Gear (acting downwards) Rope Gripper
 Others (please specify) _____
- (ii) Brand _____ Model _____
 Certificate No. & Date of Issue _____

2.9 Unintended Car Movement Protection Means

- (a) Type of Unintended Car Movement Protection Means
 Brake on Sheave Rope Gripper
 Car Safety Gear Counterweight Safety Gear
- (b) Has the unintended car movement protection means in 2.9 (a) been certified in accordance with Annex F.8 of EN 81-1 or similar? N.A. Yes No
- (c) Brand _____ Model _____
 Certificate No. & Date of Issue _____

3. Static Examination – Electrical

3.1 Insulation Resistance to Earth

- (a) Lift Motor _____ MΩ
- (b) MG Set (if fitted): Motor _____ MΩ Generator _____ MΩ
- (c) Power System _____ MΩ
- (d) Safety Circuits _____ MΩ

3.2 Earthing

- (a) Is the maximum continuity resistance to earth less than 0.5 Ω? Yes No
- (b) Is the car connected to controller earthing terminal by a separate conductor $\geq 0.75\text{mm}^2$? Yes No

3.3 Protection of Conductors

- Is the fixed wiring in conduit or trunking (or fittings which ensure equivalent protection) throughout? Yes No

3.4 Phase Reversal and Phase Failure Devices

- Do the phase reversal and phase failure devices operate correctly? Yes No

4. Dynamic Tests

4.1 Safety Contacts/Circuits

- (a) Have the contacts at each landing entrance been proved to ensure that when broken there is no movement of the car? Yes No
- (b) Have the mechanical locks at each landing entrance been proved for positive locking? Yes No
- (c) Have the car door/gate contacts been proved so that when broken there is no movement of the car? Yes No
- (d) If separate terminal stopping switches are fitted, do they operate satisfactorily? N.A. Yes No
- (e) Do the final limit switches cut off the motor supply before the car or counterweight contact the buffers? Yes No
- (f) Have the stopping devices on the car top, in the pulley room and pit, been proved so that when broken no movement of the car occurs? Yes No
- (g) Have all other switches/contacts in the safety circuit been proved so that when broken no movement of the car occurs? Yes No
- (h) Does the earthing of the most remote contact (lock or push button) operate a fuse or trip a breaker without delay? Yes No
- (i) Are all other electromechanical interlocks working properly? Yes No

4.2 Car Top Control Station

- (a) Speed Up _____ m/s
- (b) Speed Down _____ m/s
- (c) Does the design and operation of the car top station comply with Clause 10.3.1.3 of Part 1 of the Design Code? Yes No

4.3 Clearances and Runby

- (a) With the counterweight on its fully compressed buffers, how much further can the lift car move upwards before it hits any obstruction? _____ mm
- (b) What is the distance between the car roof and the lowest parts of roof of the lift well, when the car levels with top floor? _____ mm
- (c) With the car resting on its fully compressed buffers, is there a sufficient space to accommodate a rectangular block as specified in Clause 1.5.3(a) of Part 1 of the Design Code with at least 0.5m between the bottom of the pit and the lowest point of the car? Yes No
- (d) Distance of bottom runby of car _____ mm
- (e) Distance of bottom runby of counterweight _____ mm

* Delete whichever is not applicable

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4.4 Door Test

- (a) Type of sliding door _____ *Horizontal / Vertical / Collapsible
 (b) Form of operation of door _____ *Manual / Powered
 (c) Power supply to door control circuit _____ V
 (d) Maximum force at the mid-point of the travel _____ N
 (e) Does the construction & operation of the door re-opening device comply with *Clause 3.5.2.2 & Clause 4.6.2.2 / Clause 3.5.2.3 & Clause 4.6.2.3 of Part 1 of the Design Code? N.A. Yes No
 (f) Do the car doors fulfil the requirements of Clause 4.10 of Part 1 of the Design Code? Yes No

5. Measurements of the Electrical System

5.1 Particulars of Lift Motor (as stated on data plate)

Maker _____ Drive System _____
 Serial No. _____ Speed _____ rpm Frequency _____ Hz
 Power rating _____ kW Rated Voltage _____ V Current Rating _____ A

5.2 Particulars of *MG Set Drive Motor / Converter (as stated on data plate)

Maker _____ Serial No. _____
 Power Rating _____ kVA Voltage _____ V
 Current Rating _____ A Speed _____ rpm Frequency _____ Hz
 (Note: Speed and frequency not applicable for converter)

5.3 Current and Speed Tests (at mid-point of travel)

| | Lift Motor Speed | Lift Speed | Lift Motor Input | | System Input MG Set*/Converter* | |
|--------------|------------------|------------|------------------|---|------------------------------------|---|
| No Load Down | rpm | m/s | V | A | V | A |
| Full Load Up | rpm | m/s | V | A | V | A |

5.4 Overcurrent protection devices

| | Lift Motor | MG Set Drive Motor | Converter |
|----------|------------|--------------------|-----------|
| Type | | | |
| Settings | | | |

6. Overspeed Governor Tests

- 6.1 Car Governor
 Governor Type _____ Serial No. _____

| | | Electrical | Mechanical |
|-----------------|----------|------------|------------|
| Device Tripping | Marked | m/s | m/s |
| Speed | Measured | m/s | m/s |

State how the governor was tested on the installation:

*Simulation / Free Fall / Actual Overspeed / Others (Specified) _____

6.2 Counterweight Governor (if fitted)

Governor Type _____ Serial No. _____

| | | Electrical | Mechanical |
|-----------------|----------|------------|------------|
| Device Tripping | Marked | m/s | m/s |
| Speed | Measured | m/s | m/s |

State how the governor was tested on the installation:

*Simulation / Free Fall / Actual Overspeed / Others (please specify) _____

7. Car Safety Gear Tests

Note: The following tests should be conducted with the car descending, with the brake open and the machine continuing to run till the ropes slip or become slack.

- 7.1 Progressive Type *N.A. / Fitted
 (a) Does the safety gear operate correctly when engaging at rated speed with the rated load uniformly distributed in the lift car? N.A. Yes No
 OR
 (b) Does the safety gear operate correctly when engaging at levelling or inspection speed with 125%*/150%* of the rated load uniformly distributed in the lift car? N.A. Yes No
 State the speed _____ m/s
- 7.2 Instantaneous Type *N.A. / Fitted
 Does the safety gear operate correctly when engaging at rated speed with the rated load uniformly distributed? Yes No

* Delete whichever is not applicable

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7.3 What was the stopping distance in the test? _____m

7.4 After the lift car was brought to a halt in the above test was the floor horizontal, or sloping less than 5% from the horizontal? Yes No

8. Counterweight Safety Gear Tests and Counterweight Inspection

Note 1: The test (a) or (b) should be conducted with the counterweight descending, with the brake open and the machine continuing to run till the ropes slip or become slack.

8.1 Progressive Type *N.A. / Fitted

(a) Does the safety gear operate correctly when engaging at rated speed with the car empty? N.A. Yes No

OR

(b) Does the safety gear operate correctly when engaging at levelling or inspection speed with the car empty? N.A. Yes No

8.2 Instantaneous Type *N.A. / Fitted
Does the safety gear operate correctly when engaging at rated speed with the car empty? Yes No

Note 2: The following inspection (c) is carried out after all dynamic tests have been completed.

8.3 Counterweight
Are there any visual defects on the whole counterweight including frame, filler weights, brackets and their fixings? Yes No

9. Ascending Car Overspeed Protection Means Test

9.1. Overspeed Governor Test

(a) Car Governor
Governor Type _____ Serial No. _____

| | | Electrical | Mechanical |
|-----------------|----------|------------|------------|
| Device Tripping | Marked | m/s | m/s |
| Speed (upward) | Measured | m/s | m/s |

State how the governor was tested on the installation:
*Simulation / Actual Overspeed / Others (please specify) _____

(b) Counterweight Governor (if fitted)
Governor Type _____ Serial No. _____

| | | Electrical | Mechanical |
|------------------|----------|------------|------------|
| Device Tripping | Marked | m/s | m/s |
| Speed (downward) | Measured | m/s | m/s |

State how the governor was tested on the installation:
*Simulation / Actual Overspeed / Others (please specify) _____

9.2. Speed Reducing Element Test

(a) Car Safety Gear (if fitted)
The test should be conducted with the car ascending and the brake open.

(i) Does the safety gear operate correctly when engaging at present speed with the car empty? Yes No

State the measured speed _____m/s

(ii) What was the stopping distance in the test? _____m

(iii) What was the deceleration in the test? _____m/s²

(b) Counterweight Safety Gear (if fitted)
The test should be conducted with the car ascending and the brake open.

(i) Does the safety gear operate correctly when engaging at present speed with the car empty? Yes No

State the measured speed _____m/s

(ii) What was the stopping distance in the test? _____m

(iii) What was the deceleration in the test? _____m/s²

(c) Rope Gripper (if fitted)
The test should be conducted with the car ascending and the brake open.

(i) Does the rope gripper operate correctly when engaging at present speed with the car empty? Yes No

State the measured speed _____m/s

(ii) What was the stopping distance in the test? _____m

(iii) What was the deceleration in the test? _____m/s²

(d) Brake on Sheave (if fitted)
The test should be conducted with the car ascending.

(i) Does the brake on sheave operate correctly when engaging at present with the car empty? Yes No

State the measured speed _____m/s

(ii) What was the stopping distance in the test? _____m

(iii) What was the deceleration in the test? _____m/s²

* Delete whichever is not applicable

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10. Unintended Car Movement Tests

- 10.1 Subsequent to the operation for an upward moving lift car,
 (a) the clearance between landing door sill and the apron _____mm
 (b) the free distance from car sill to landing door lintel _____mm
- 10.2 Subsequent to the operation for a downward moving lift car,
 (a) the horizontal distance between the well wall and the entrance frame of the lift car (along from the level of the landing sill to 1,200mm downward) _____mm
 (b) the free distance from car sill to landing door lintel _____mm
- 10.3 What was the deceleration in the test? _____m/s²

11. Buffer Tests

- 11.1 For Car Buffers
 (a) When the car was brought into contact with the buffers at rated load at rated speed, or at a speed for which the stroke of the buffers has been calculated, was the operation satisfactory? Yes No
 (b) Do the buffers recover automatically after operation? Yes No
- 11.2 For Counterweight Buffers
 When the counterweight was brought into contact with the buffers with the car empty at rated speed, or a speed for which the stroke of the buffers has been calculated, was the operation satisfactory? Yes No

12. Traction Check

- 12.1 Does the car stop under emergency conditions
 (a) with the car empty when travelling upwards at rated speed? Yes No
 (b) with the 125% of the rated load when travelling downwards in the lower part of the lift well at rated speed? Yes No
- 12.2 With the counterweight resting on its fully compressed buffers, is it impossible for the empty car to be raised under power? Yes No

13. Emergency Stopping Distance

- 13.1 What was the stopping distance of the car travelling in down direction at rated speed and carrying 125% of the rated load under emergency stopping conditions? _____m

- 13.2 What was the stopping distance of the empty car traveling in up direction at rated speed under emergency stopping conditions? _____m

14. Duty Cycle Test

- Does the lift operate satisfactorily for a period of at least 0.5 hour when running with rated load, full travel and intermediate stops at a rate of starts equal to the number of starts per hour recommended in Item 1? Yes No

15. General (Lift Work)

- (a) Is the maximum load indicated in the car and does it comply with Clause 11.2.1 of Part 1 of the Design Code? Yes No
 (b) Does the fireman's lift operation function correctly? N.A. Yes No
 (c) Are the emergency instructions displayed in the machine room? Yes No
 (d) Does the emergency operation system function correctly in accordance with Clause 8.5 of Part 1 of the Design Code? Yes No
 (e) Does the emergency lighting of the car comply with Clause 4.16.3 of Part 1 of the Design Code? Yes No
 (f) What are the emergency alarm devices?

| | Mangt office | M/C room | Lift car | Main lobby/Pit |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| (i) Alarm bell* | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (ii) Intercom* | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| (iii) Indication light* | <input type="checkbox"/> | <input type="checkbox"/> | | |
| (iv) Indication light for acknowledgement & the notice* | | <input type="checkbox"/> | | |

- (g) Does the overload device operate satisfactorily? Yes No

16. General (Other works)

- (a) Is the machine room artificial lighting adequate for maintenance purposes? Yes No
 (b) Does the artificial lighting in the lift well comply with Clause 1.7(b) of Part 1 of the Design Code? Yes No
 (c) Are the machine room conditions satisfactory? Yes No
 (d) Are the provisions for ventilating the machine room adequate? Yes No
 (e) Are the machine room doors or trap doors fitted with a suitable lock to comply with Clause 3.15.3 and Clause 3.15.4 of the CoP on Building Works for Lifts and Escalators? Yes No

* Delete whichever is not applicable

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- (f) Are the safety means of access to all items of equipment in accordance with the Part 1 of the Design Code and the CoP on Building Works for Lifts and Escalators? Yes No
If no, state details _____
- (g) Are the hoistway emergency doors (if fitted), in compliance with Clause 3.2 of the CoP on Building Works for Lifts and Escalators? N.A. Yes No
- (h) Documents (copy only) in respect of exemptions (if any) shall be provided for reference. N.A. Yes No
- (i) Are CCTV camera provided in lift car and CCTV monitors provided in management office* and machine room*? N.A. Yes No

17. Declaration

I certify that on _____ the lift and all its associated equipment or machinery was thoroughly examined, and found to be free from obvious defects and in safe working order. I confirm also that the design and construction of the lift and all its associated equipment or machinery complied with Part 1, Part 5, or Part 6 of the Design Code, Works Code, and CoP on Building Works for Lifts and Escalators with the exception of the following items (if any, please specify).

Exceptions:

The information in this examination report is an accurate record of the examination carried out on the aforementioned date.

Remarks: Design Code means CoP on the Design and Construction of Lifts and Escalators
Works Code means CoP for Lift Works and Escalator Works

Name & Registration No. of
Registered Lift Engineer

Signature of
Registered Lift Engineer

Date

* Delete whichever is not applicable

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1. Description of Installation

Location (Address) _____
 Brand _____ Model _____ Lift No. _____
 Lift Location ID _____ Length of Travel _____ m
 Passenger Lift Freight Lift Vehicle Lift Platform Lift Stairlift
 Car Parking System
 Levels Served _____
 Rated Load _____ kg Persons _____ Rated Speed Up _____ m/s
 Dia. of Ram _____ m Ram Action: *Direct / Indirect
 Type of Ram: *Single / Telescopic
 Power Supply at Time of Test _____ Volt _____ Phase _____ Hz
 Levelling tolerance \pm _____ mm Number of Starts _____ /hr
 Car Floor Area _____ m²
 Machine Room Location: *above lift well / below lift well / at side / others _____
 Is this a fireman's lift? Yes No
 Is this lift for persons with a disability? Yes No

Devices provided against free fall and descent with excessive speed of the car—
 (a) Safety gear tripped by overspeed governor Yes No
 (b) Safety gear tripped by failure of suspension gear or by safety rope Yes No
 (c) Rupture valve Yes No
 (d) Restrictor Yes No

Devices / systems provided against creeping of the car—
 (a) Safety gear tripped by downward movement of the car Yes No
 (b) Pawl device Yes No
 (c) Clamping device Yes No
 (d) Electrical anti-creep system Yes No

2. Static Examination – Mechanical

2.1 Jack
 Single Jack Multi Jack Number of Jacks _____
 In multi jack system, do the jacks comply with Clause 8.1.3 of Part 2 of the Design Code? N.A. Yes No

2.2 Suspension
 (a) Suspension Ropes
 Certificate No. & Date of Issue _____
 Number _____ Nominal Diameter _____ mm
 Have the suspension ropes attained the criteria for replacement in accordance with Clause 5.4.7 of the Works Code? Yes No

(b) Type of Anchorage: Car _____
 Counterweight (if provided) _____
 Have the anchorages been examined and found in good working condition? Yes No

2.3 Suspension Chain *N.A. / Fitted
 (a) Number _____ (b) Pitch _____ mm
 (c) Type and Construction _____

2.4 Safety Gear *N.A. / Fitted
 (a) Has the safety gear been certified in accordance with Clause 5.10.1.5 of Part 2 of the Design Code? Yes No
 (b) Brand _____ Model _____
 (c) Certificate No. & Date of Issue _____

2.5 Energy Dissipation Buffer *N.A. / Fitted
 (a) Has the buffer been certified in accordance with Annex F.5 of EN 81-2 or similar? Yes No
 (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
 (c) Is the buffer switch functioning properly? Yes No

2.6 Energy Accumulation Buffer *N.A. / Fitted
 (a) Has the buffer been certified in accordance with Annex F.5 of EN 81-2 or similar? N.A. Yes No
 (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
 (c) Do the buffers comply with Clause 6.2.3 of Part 2 of the Design Code? Yes No

2.7 Overspeed Governor *N.A. / Fitted
 (a) Has the governor been certified in accordance with Annex F.4 of EN 81-2 or similar? Yes No
 (b) Brand _____ Model _____
 Certificate No. & Date of Issue _____
 (c) Is the data plate in accordance with Clause 11.6 of Part 2 of the Design Code? Yes No
 (d) Does the governor rope conform to Clause 5.12.6 of Part 2 of the Design Code? Yes No
 (e) Is the governor slack rope switch working properly? Yes No

*Delete whichever is not applicable

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- 2.8 Door Locking Device
- (a) Has the landing door locking device been certified in accordance with Clause 3.7 of Part 2 of the Design Code? Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____
- (b) Does the car door locking device comply with Clause 4.7 of Part 2 of the Design Code? Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____

- 2.9 Rupture Valve/One-way Restrictor
- Has the rupture valve/one-way restrictor been certified in accordance with Annex F.7 of EN 81-2 or similar? N.A. Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____

3. Static Examination – Electrical

- 3.1 Insulation Resistance to Earth
- (a) Pump Motor _____ MΩ (b) Power System _____ MΩ
 (c) Safety Circuits _____ MΩ

- 3.2 Earthing
- (a) Is the maximum continuity resistance to earth less than 0.5 Ω? Yes No
 (b) Is the car connected to controller earthing terminal by a separate conductor $\geq 0.75\text{mm}^2$? Yes No

- 3.3 Protection of Conductors
- Is the fixed wiring in conduit or trunking (or fittings which ensure equivalent protection) throughout? Yes No

- 3.4 Phase Failure and Phase Reversal Devices
- Do the phase failure and phase reversal devices operate correctly? Yes No

4. Dynamic Tests

- 4.1 Safety Contacts/Circuits
- (a) Have the contacts at each landing entrance been proved to ensure that when broken there is no movement of the car? Yes No
 (b) Have the mechanical locks at each landing entrance been proved for positive locking? Yes No

- (c) Have the car door/gate contacts been proved so that when broken there is no movement of the car? Yes No
 (d) If separate terminal stopping switches are fitted, do they operate satisfactorily? N.A. Yes No
 (e) Does the final limit switch operate in accordance with Clause 6.3 of Part 2 of the Design Code? Yes No
 (f) Have the stopping devices on the car top, in the pulley room and pit been proved so that when broken no movement of the car occurs? Yes No
 (g) Have all other switches/contacts in the safety circuit been proved so that when broken there is no movement of the car? Yes No
 (h) Does the earthing of the most remote contact (lock or push button) operates a fuse or trip a breaker without delay? Yes No
 (i) Are all other electromechanical interlocks working properly? Yes No

- 4.2 Car Top Control Station
- (a) Speed Up _____ m/s (b) Speed Down _____ m/s
 (c) Does the design and operation of the car top station comply with Clause 10.3.1.3 of Part 2 of the Design Code? Yes No

- 4.3 Clearances and Runbys
- (a) Will the car and counterweight (if fitted) clear all obstacles when driven at slow speed:
 (i) with the car and rated load compressing the car buffers? Yes No
 (ii) with the counterweight (if fitted) compressing its buffer (car empty)? N.A. Yes No
 (iii) with the ram fully extended to the ram stop? Yes No
- (b) What is the distance between the car roof and the lowest parts of roof of the lift well, when the car levels with top floor? _____ mm
- (c) With the car resting on its fully compressed buffers, is there a sufficient space to accommodate the rectangular block as specified in Clause 1.5.2(a) of Part 2 of the Design Code with at least 0.5m between the bottom of the pit and the lowest point of the car? Yes No
 (d) Distance of bottom runby of car _____ mm
 (e) Distance of bottom runby of counterweight (if fitted) _____ mm

*Delete whichever is not applicable

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- 4.4 Door Tests
- (a) Type of sliding doors *Horizontal / Vertical / Collapsible
- (b) Form of operation of doors *Manual / Powered
- (c) Power supply to door control circuit _____V
- (d) Maximum force at the mid-point of the travel _____N
- (e) Does the construction & operation of the door re-opening device comply with *Clause 3.5.2.2 & Clause 4.6.2.2 / *Clause 3.5.2.3 & Clause 4.6.2.3 of the Part 2 of the Design Code? N.A. Yes No
- (f) Do the car doors fulfil the requirements of Clause 4.10 of Part 2 of the Design Code? Yes No

5. Measurements of the Hydraulic and Electrical System

Note: 1 bar = 10⁵N/m² = 10⁵Pa

- (a) With rated load in the car and at the highest floor level, state the static hydraulic pressure _____bar
- (b) When subject to 200% of full load pressure applied between the non-return valve and the jack (included) for a period of 5 minutes, is there evidence of any pressure drop or leakage of hydraulic fluid? Yes No
- (c) Particulars of the pump motor (as stated on data plate)
 Maker _____ Drive System _____
 Serial No. _____ Speed _____r/min Frequency _____Hz
 Power Rating _____kW Rated Voltage _____V Current Rating _____A
- (d) Particulars of the pump (as stated on data plate)
 Maker _____ Serial No. _____ Type _____
- (e) Current and Speed Tests (at mid-point of travel)

| | Hydraulic pressure (See Note 1) | Lift Speed | Motor Input (See Note 2) | |
|---------------|------------------------------------|------------|--------------------------|---|
| No Load Up | bar | m/s | V | A |
| Rated Load Up | bar | m/s | V | A |

Note 1 - The pressure readings should be taken between the check valves, or down direction valve, and the supply line to the cylinder.

Note 2 - The motor current readings on conductors adjacent to the motor terminal block should be taken with the motor running steadily.

- (f) Pressure relief valve operated at pressure of _____bar and is the integrity of the pipework satisfactory? Yes No
- (g) Is the relief valve secured against any unauthorized interference? Yes No
- (h) Does the check valve hold the car with rated load at floor level? Yes No
- (i) Does the rupture valve function correctly? N.A. Yes No
- (j) Does the operation of the manual lowering valve lower the car at a slow speed not exceeding 0.3m/s? Yes No
- (k) In the case of an indirect acting lift, does the slack chain*/ropes* switch or pressure switch prevent operation of the lift until pressure is re-established by the re-setting of the switch? N.A. Yes No
- (l) Are precautions against any overheating of the fluid provided? Yes No

6. Overspeed Governor/Safety Rope/Suspension Gear Tests

- (a) Governor *N.A. / Fitted
 Type _____ Serial No. _____

| | | Electrical | Mechanical |
|-----------------------|----------|------------|------------|
| Device Tripping Speed | Marked | m/s | m/s |
| | Measured | m/s | m/s |

State how the governor was tested on the installation:

*Simulation / Free Fall / Actual Overspeed / Others (please specify) _____
 OR

- (b) Safety Rope
 If the safety gear*/clamping device* is tripped by a safety rope, does the triggering mechanism operates satisfactorily? N.A. Yes No
- (c) Suspension Gear
 If the safety gear*/clamping device* is tripped by the failure of suspension gear, does the triggering mechanism operate satisfactorily? N.A. Yes No

7. Car Safety Gear Tests *N.A. / Fitted

Note: The following tests should be conducted with the car descending.

- (a) Progressive Type
 Does the safety gear operate correctly if engaged at *levelling / inspection / rated speed with *100% / 125% / 150% of the rated load uniformly distributed in the lift car? Yes No
 State the speed: _____m/s

*Delete whichever is not applicable

EXAMINATION REPORT FOR HYDRAULIC LIFTS

- OR
- (b) Instantaneous Type
Does the safety gear operate correctly if engaged at rated speed with the rated load uniformly distributed in the lift car? Yes No
- (c) What was the stopping distance in the test? _____mm
- (d) After the lift car was brought to a halt in the above test, was the car floor horizontal, or sloping less than 5% from the horizontal? Yes No
- 8. Clamping Device Tests** *N.A. / Fitted
- (a) Progressive Type
Does the clamping device operate correctly when engaging with 125%*/150%* of the rated load uniformly distributed in the lift car? Yes No
- (b) Instantaneous Type
Does the clamping device operate correctly when engaging with 125%*/150%* of the rated load uniformly distributed in the car? Yes No
- 9. Buffer Tests**
- (a) For Car Buffers
- (i) When the car was brought into contact with the buffers at rated load and at rated speed, or at a speed for which the stroke of the buffers has been calculated, was the operation satisfactory? Yes No
- (ii) Do the buffers automatically return to their designed position after undergoing compression? Yes No
- (b) For Counterweight Buffers (if fitted)
When the counterweight was brought into contact with the buffers with the car empty and travelling at rated speed, or a speed for which the stroke of the buffers has been calculated, was the operation satisfactory? N.A. Yes No
- 10. Anti-Creep**
- Does the anti-creep device operate in accordance with conditions stipulated in Clause 10.3.1.4 of Part 2 of the Design Code? Yes No

- 11. Duty Cycle Test**
- Does the lift operate satisfactorily for a period of at least 0.5 hour when running with rated load over the full travel distance and serving intermediate stops at a rate equal to the number of starts per hour as stated in Item 1? Yes No
- 12. General (Lift Work)**
- (a) Is the maximum load indicated in the car and does it comply with Clause 11.2.1 of Part 2 of the Design Code? Yes No
- (b) Does the fireman's lift operation function correctly? N.A. Yes No
- (c) Are the emergency instructions displayed in the machine room? Yes No
- (d) Does the manual emergency operation system function correctly in accordance with Clause 8.9 of Part 2 of the Design Code? Yes No
- (e) Does the emergency lighting of the car comply with Clause 4.16.3 of Part 2 of the Design Code? Yes No
- (f) What are the emergency alarm devices?
- | | Mangt office | M/C room | Lift car | Main lobby/Pit |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| (i) Alarm bell* | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (ii) Intercom* | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| (iii) Indication light* | <input type="checkbox"/> | <input type="checkbox"/> | | |
| (iv) Indication light for acknowledgement & the notice* | | <input type="checkbox"/> | | |
- (g) Does the overload device operate satisfactorily? Yes No
- 13. General (Other Works)**
- (a) Is the machine room artificial lighting adequate for maintenance purposes? Yes No
- (b) Does the artificial lighting in the lift well comply with Clause 1.7 of Part 2 of the Design Code? Yes No
- (c) Are the machine room conditions satisfactory? Yes No
- (d) Are the provisions for ventilation of the machine room adequate? Yes No
- (e) Are the machine room doors or trap doors fitted with a suitable lock to comply with Clause 3.15.3 and Clause 3.15.4 of CoP on Building Works for Lifts and Escalators? Yes No

*Delete whichever is not applicable

EXAMINATION REPORT FOR HYDRAULIC LIFTS

- (f) Are the safety means of access to all items of equipment in accordance with the Part 2 of the Design Code and CoP on Building Works for Lifts and Escalators? Yes No
If no, state details _____
- (g) Are the hoistway emergency doors (if fitted), in compliance with Clause 3.2 of CoP on Building Works for Lifts and Escalators? N.A. Yes No
- (h) Documents (copy only) in respect of exemptions (if any) shall be provided for reference N.A. Yes No
- (i) Are CCTV camera provided in lift car and CCTV monitors provided in management office *and machine room*? N.A. Yes No

14. Declaration

I certify that on _____ the lift and all its associated equipment or machinery was thoroughly examined, and found to be free from obvious defects and in safe working order. I confirm also that the design and construction of the lift and all its associated equipment or machinery complied with Part 2 of the Design Code, Works Code, and CoP on Building Works for Lifts and Escalators with the exception of the following items (if any, please specify).

Exceptions:

The information in this examination report is an accurate record of the examination carried out on the aforementioned date.

Remarks: Design Code means CoP on the Design and Construction of Lifts and Escalators
Works Code means CoP for Lift Works and Escalator Works

Name & Registration No. of
Registered Lift Engineer

Signature of
Registered Lift Engineer

Date

EXAMINATION REPORT FOR ESCALATORS/PASSENGER CONVEYORS

1. Description of Installation

Location (Address) _____
 Environment: *Outdoor/ Indoor _____
 Brand _____ Model _____
 Escalator Location ID _____ Escalator No. _____
 Angle of Inclination _____ degree Rated Speed _____ m/s
 Vertical Rise _____ m Capacity _____ Persons/Hour
 No. of Exposed Steps between Combplates _____
 Horizontal Travel Distance of the Steps at the ends _____ mm
 Contract Power Supply _____ Volt _____ Hz _____ Phase
 Type of Balustrade: *Opaque / Tempered Glass / Others _____
 Machinery Location: *Inside Truss / Outside Truss _____
 Is yellow band provided on *side edges / leading / trailing edge? Yes No
 Is sump pump provided at *upper / lower station? Yes No
 Is remote monitoring facilities provided? Yes No

2. Static Examination

- (a) Step
 Has the step been certified in accordance with Clause 4.2.2 of Part 4 of the Design Code? Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____
 Step Width _____ mm Step Depth _____ mm
 Step Height _____ mm
- (b) Handrail
 Has the handrail been certified in accordance with Clause 3 of Part 4 of the Design Code? N.A. Yes No
 Brand _____ Model _____
 Certificate No. & Date of Issue _____
 Distance between Handrail Centrelines _____ mm
- (c) Are the combplates and terminal guides adjusted properly? Yes No
 (d) Has the brake(s) been examined and found to be in order? Yes No
 (e) Is an auxiliary brake provided? N.A. Yes No

3. Dynamic Tests

- (a) Has the operation brake been tested at *no load / full load *up / down condition? Yes No
 The stopping distance is _____ mm

- (b) Does the auxiliary brake operate properly? N.A. Yes No
 (c) Does the overspeed device operate properly? N.A. Yes No

4. Driving Motor Current Tests

Driving Motor Manufacturer _____ Serial Number _____
 Voltage at Time of Test _____ Rated Power _____

Form of Overload Protection:

- 3-Phase circuit breaker
 Overloads in each phase
 Others _____

| | Running Current(A) | |
|---------|--------------------|------|
| | Up | Down |
| No Load | | |

Separate supply for machine compartment/power socket? Yes No

5. Clearance

- (a) Is the clearance between consecutive steps not exceeding 6mm? Yes No
 (b) Is the clearance between step and adjacent skirting not exceeding 4mm? Yes No
 (c) Is the total clearance between step and both skirting not exceeding 7mm? Yes No
 (d) Is the clearance between the upper surface of the step and the root of the comb teeth not exceeding 4mm? Yes No
 (e) Is the distance between the floor and the lower point of the handrail into the newel within the range of 0.1m to 0.25m? Yes No

6. Insulation Resistance to Earth

Power System: _____ MΩ Safety Circuit: _____ MΩ

7. Earthing

- (a) Are all metalwork enclosing conductors bonded to earth? Yes No
 (b) Is the maximum continuity resistance to earth less than 0.5Ω? Yes No

*Delete whichever is not applicable

EXAMINATION REPORT FOR ESCALATORS/PASSENGER CONVEYORS

8. Half Hour Run

The *escalator / passenger conveyor is to run unladen, fifteen minutes in the *up / forward direction followed by fifteen minutes in the *down / backward direction. Yes No
 Observations: _____

(c) Does the clear height above *step / belt comply with Clause 1.2.2 of Part 4 of the Design Code? Yes No

9. General (Escalator*/Passenger Conveyor* Work)

Have the following items where fitted been checked for correct operation?

- | | | |
|---|-------------------------------|--|
| (a) Emergency Stop Switches | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (b) Broken Step Chain Device | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (c) Broken Drive Chain*/Belt* Device | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (d) Handrail Inlet Switch | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (e) Non-reversal Device | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (f) Combplate Switch | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (g) Operation Brake | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (h) Step Sagging Device | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (i) Skirt Panel Switch | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (j) Phase Protection Device | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (k) Overspeed Device | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (l) Broken Handrail Device | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (m) Auxiliary Brake | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (n) Inspection Door and Trap Door | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (o) Handrail Speed Monitoring | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (p) Chair Tensioning Device in excess ±20mm | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (q) Missing Step or Pallet Device | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (r) Lifting of the Braking System Monitoring Device | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |

10. General (Other Works)

- (a) Have the following items been properly provided?
- | | | |
|---|-------------------------------|--|
| (i) Notices/pictographs for passengers | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (ii) Guards at adjacent building obstacles and criss-cross escalators | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (iii) Rigid guard adjacent to escalator handrail | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| (iv) Notice on access door to machinery spaces | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> No <input type="checkbox"/> |
- (b) Do the unrestricted landing areas comply with Clause 1.2.1.1 of Part 4 of the Design Code? Yes No

11. Declaration

I certify that on _____ the escalator and all its associated equipment or machinery was thoroughly examined, and found to be free from obvious defects and in safe working order. I confirm also that the design and construction of the escalator and all its associated equipment or machinery complied with Part 4 of the Design Code, Works Code, and CoP on Building Works for Lifts and Escalators with the exception of the following items (if any, please specify).

Exceptions:

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 Works Code means CoP for Lift Works and Escalator Works

 Name & Registration No. of
 Registered Escalator Engineer

 Signature of
 Registered Escalator Engineer

 Date

*Delete whichever is not applicable

EXAMINATION REPORT FOR ELECTRIC SERVICE LIFTS

1. Description of Installation

Location (Address) _____
 Brand _____ Model _____ Lift No. _____
 Lift Location ID _____ Length of Travel _____ m
 Levels Served _____
 Rated Load _____ kg Rated Speed _____ m/s
 Power Supply at Time of Test _____ Volt _____ Phase _____ Hz
 Machine Room Location: *above lift well / below lift well / at side
 Car Floor Area _____ m² Car internal height _____ m

2. Examinations and Tests

2.1 Suspension

- (a) Suspension Ropes
 Number _____ Nominal Diameter _____ mm
 Have the suspension ropes attained the criteria for replacement in accordance with Clause 5.4.7 of the Works Code? Yes No
- (b) Type of Anchorages: Car _____
 Counterweight _____
 Have the anchorages been examined and found in good working condition? Yes No

2.2 Car Safety Gear Tests

Note: The following test should be conducted with the car descending. *N.A. / Fitted

- (a) Progressive Type
 Does the safety gear operate correctly if engaged at *inspection / rated speed with *100% / 125% of the rated load uniformly distributed in the lift car? N.A. Yes No
 State the speed: _____ m/s
- (b) Instantaneous Type
 Does the safety gear operate correctly if engaged at rated speed with rated load uniformly distributed in the lift car? N.A. Yes No
- (c) The stopping distance is _____ mm

2.3 Counterweight Safety Gear Tests

Note: The following test should be conducted with the counterweight descending. *N.A. / Fitted

- (a) Progressive Type
 Does the safety gear operate correctly if engaged at *inspection / rated speed with the lift car empty? Yes No

OR

- (b) Instantaneous Type
 Does the safety gear operate correctly if engaged at rated speed with lift car empty? Yes No

2.4 *Overspeed Governor / Safety Rope / Suspension Failure Device Test

- (a) Car *N.A. / Fitted
 (i) Governor
 Type _____ Serial No. _____

| Device | Tripping Speed (m/s) | |
|------------|----------------------|----------|
| | Marked | Measured |
| Electrical | | |
| Mechanical | | |

State how the governor was tested on the installation:

*Simulation / Free Fall / Actual Overspeed / Others _____

- (ii) *Safety Rope / Suspension Failure Device
 Does the triggering mechanism operate correctly? Yes No

(b) Counterweight

- (i) Governor *N.A. / Fitted
 Type _____ Serial No. _____

| Device | Tripping Speed (m/s) | |
|------------|----------------------|----------|
| | Marked | Measured |
| Electrical | | |
| Mechanical | | |

State how the governor was tested on the installation:

Simulation*/Free Fall*/Actual Overspeed*/Others* _____

- (ii) *Safety Rope / Suspension Failure Device
 Does the triggering mechanism operate correctly? Yes No

2.5 Brake Test

- Is the brake capable of stopping the machine when the lift is travelling at its rated speed with 125% of the rated load? Yes No

*Delete whichever not applicable

EXAMINATION REPORT FOR ELECTRIC SERVICE LIFTS

2.6 Buffer Tests
 (a) Car Buffer
 When the lift was brought into contact with the buffer with rated load at rated speed, was the operation satisfactory? Yes No

(b) Counterweight Buffer
 When the counterweight was brought into contact with the buffer with the car empty at rated speed, was the operation satisfactory? Yes No

2.7 Insulation Resistance to Earth and Earthing
 (a) Lift Motor _____ MΩ (b) Safety Circuit _____ MΩ
 (c) Is the maximum continuity resistance to earth less than 0.5 Ω? Yes No

2.8 Safety Contacts/Circuits
 (a) Have the contacts at each landing door been proved so that when broken there is no movement of the car? Yes No
 (b) Have the car door contacts been proved so that when broken there is no movement of the car? Yes No
 (c) Do the terminal stopping switches operate satisfactory? Yes No
 (d) Do the stopping device in machine room and in pit operate correctly? Yes No
 (e) Does the earthing of the most remote contact (lock or push button) operate a fuse or trip a breaker? Yes No

2.9 Current and Speed Tests (at mid-point of travel)

| | Lift Motor Speed (rpm) | Lift Speed (m/s) | Motor Input | |
|--------------|---------------------------|---------------------|-------------|-----|
| | | | (V) | (A) |
| No Load Down | | | | |
| Full Load Up | | | | |

2.10 Traction Checks
 Does the car stop under emergency conditions
 (a) with the car empty when travelling upwards in the upper part of the lift well at rated speed? Yes No
 (b) with 125% of the rated load when travelling downwards in the lower part of the lift well at rated speed? Yes No

3. General

(a) Are the maximum load and warning notice displayed at each landing in compliance with Clause 10.1 and Clause 10.3.1 of Part 3 of the Design Code? Yes No

(b) Are the emergency instructions displayed in the machine room? Yes No
 (c) Is the machine room lighting adequate for maintenance purpose? Yes No
 (d) Are the provisions for ventilating the machine room adequate? Yes No
 (e) Is each machine room door or trap door complied with the CoP on Building Works for Lifts and Escalators? Yes No
 (f) Is the clear space in front of the controller not less than 900mm in depth? If no, state details _____ Yes No
 (g) Is the access to machine room and to all equipment safe and convenient? Yes No

4. Declaration

I certify that on _____ the lift and all its associated equipment or machinery was thoroughly examined, and found to be free from obvious defects and in safe working order. I confirm also that the design and construction of the lift and all its associated equipment or machinery complied with Part 3 of the Design Code, Works Code, and CoP on Building Works for Lifts and Escalators with the exception of the following items (if any, please specify).

Exceptions:

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Remarks: Design Code means CoP on the Design and Construction of Lifts and Escalators
 Works Code means CoP for Lift Works and Escalator Works

 Name & Registration No. of
 Registered Lift Engineer

 Signature of
 Registered Lift Engineer

 Date

*Delete whichever not applicable

EXAMINATION REPORT FOR PUZZLE TYPE MECHANIZED VEHICLE PARKING SYSTEMS (MVPS-PT)

1. Basic Information and Description of Installation

Location (Address) _____
 Lift No. _____ Lift Location ID _____
 Brand _____ Model _____ Maximum Vertical Travel _____ m
 Number of Levels _____
 Number of Columns _____
 Number of Parking Spaces _____
 Max. Allowable Car Dimensions (LxWxH) _____ m
 Rated Load for Each Carrier _____ kg
 Vertical Movement Rated Speed _____ m/s Horizontal Movement Rated Speed _____ m/s
 Power Supply at Time of Test _____ Volt _____ Phase _____ Hz
 Drive Type: _____ Control Type: _____
 Model No. and Name of Manufacturer of the Controller _____

2. Static Examination – Mechanical

2.1 Suspension

(a) Suspension Ropes N.A.
 Certificate No. & Date of Issue _____
 Number per carrier _____ Nominal Diameter _____

Have the suspension ropes attained the criteria for replacement in accordance with Clause 5.4.8 of the Works Code? Yes No

(b) Chains N.A.
 Brand and ISO / model number of drive chain of lifting motor _____
 Brand and ISO / model number of drive chain of sliding motor _____
 Brand and ISO / model number of lifting chain _____

Are all chains checked to be without visible cracks, well-lubricated and in good working condition? Yes No

Are the elongations of all chains within the maximum allowable elongation recommended by the manufacturer? Yes No

2.2 Brake

(a) Type: *Drum/ Disc _____ *Single/ Double _____
 (b) Does the brake sustain a static carrier with 125% of the rated load? Yes No
 (This test is only required to be conducted in examinations with load.)

3. Static Examination – Electrical

3.1 Insulation Resistance to Earth

(a) Lifting Motors (attach supplementary sheet if necessary)

| Carrier No. | Insulation Resistance to Earth (MΩ) |
|-------------|-------------------------------------|
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(b) Sliding Motors (attach supplementary sheet if necessary)

| Carrier No. | Insulation Resistance to Earth (MΩ) |
|-------------|-------------------------------------|
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(c) Power System _____ MΩ (d) Control Circuit _____ MΩ

* In relation to section 4(a) & 4(b): Full load is required to be used in examinations with load; for other examinations, the MVPS may be tested at no load condition only.

EXAMINATION REPORT FOR PUZZLE TYPE MECHANIZED VEHICLE PARKING SYSTEMS (MVPS-PT)

- 3.2 Earthing
- (a) Is the maximum continuity resistance to earth less than 0.5Ω? Yes No
- (b) Is the carrier connected to controller earthing terminal by a separate conductor with proper sizing? Yes No

- 3.3 Protection of Conductors
- Is the fixed wiring in conduit or trunking (or fittings that ensure equivalent protection) throughout? Yes No

- 3.4 Phase Reversal and Phase Failure Devices
- Do the phase reversal and phase failure devices operate/ function correctly? Yes No

4. Dynamic Tests

- (a) Have all carriers been operated satisfactorily when running at *no load / full load? Yes No
- (b) Have all operation brakes been tested at *no load / full load when travelling at rated speed? Yes No
- (c) Have all gates been tested to operate satisfactorily? Yes No
- (d) Have all gate switches been proved that when the gates are not at the fully closed position, there is no movement of the carrier? Yes No
- (e) Do the safety hooks disengage when the carriers are lowered from the storage position? Yes No
- (f) Do the brakes engage and stop a moving carrier when power supply is cut from the system? Yes No

5. Measurements of the Electrical System

- 5.1 Particulars of Lifting Motors
- Manufacturer _____ Serial Number _____
- Voltage at Time of Test _____ Rated Current _____
- Rated Power _____

- 5.2 Particulars of Sliding Motors
- Manufacturer _____ Serial Number _____
- Voltage at Time of Test _____ Rated Current _____
- Rated Power _____

- 5.3 Lifting Motor Current Tests (attach supplementary sheet if necessary)
- (a) Tests with 100% and 110% rated load are only required to be conducted in examinations with load.
- (b) These tests should be conducted with the carrier travelling upwards at rated speed.

| Carrier No. | No load: Motor input (A) | 100% rated load: Motor input (A) | 110% rated load: Motor input (A) | Trip Setting of overcurrent relay (A) (If applicable) |
|-------------|--------------------------|----------------------------------|----------------------------------|---|
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6. Overload Detection

- (a) Overload detection is achieved by _____
- (b) Does the overload device operate satisfactorily? Yes No

7. Safety Hook Test

This test is only required to be conducted in examinations with load.

- Can the safety hooks catch a carrier carrying 100% of the rated load and travelling downwards at rated speed? Yes No

8. Emergency Stop Test with Load

This test is only required to be conducted in examinations with load.

- Does a carrier travelling in down direction at rated speed and carrying 125% of the rated load stop safely under emergency stopping conditions? Yes No

* In relation to section 4(a) & 4(b): Full load is required to be used in examinations with load; for other examinations, the MVPS may be tested at no load condition only.

EXAMINATION REPORT FOR PUZZLE TYPE MECHANIZED VEHICLE PARKING SYSTEMS (MVPS-PT)

9. Operational / Safety Devices

Are the following devices, where fitted, operating correctly?

- | | | | |
|---|-------------------------------|------------------------------|-----------------------------|
| (a) Emergency Stop Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (b) Anti-intrusion Sensors | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (c) Dimension Checking Sensors | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (d) Upper Limit Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (e) Lower Limit Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (f) Ultimate Limit Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (g) Horizontal Limit Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (h) Chain/Rope Slack Detection Switches | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (i) Audio/Visual Alarms | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (j) CCTV | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (k) Emergency Lighting | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (l) Intercom | N.A. <input type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

10. General

- | | | |
|--|------------------------------|-----------------------------|
| (a) Are the maximum vehicle weight and dimensions displayed in a conspicuous position in the proximity of the MVPS? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (b) Are the operation instructions and warnings against misuse displayed in a conspicuous position in the proximity of the MVPS? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (c) Are the contact details of the MVPS operator displayed in a conspicuous position in the proximity of the MVPS? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (d) Does the manual-release function of the brake operate correctly? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (e) After pressing the emergency stop switch, does the MVPS remain inoperable until the system has been reset and the emergency stop switch has been released? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (f) Are CCTVs connected to the CCTV monitors installed at the office of the MVPS operator or fault call centre? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (g) Are audio/visual alarms activated during movement of the carriers/gates? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (h) Is light level of 50 lux provided at locations where users have access? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (i) Is light level of 200 lux provided at the control panel of the MVPS? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

11. Declaration

I certify that on _____ the MVPS and all its associated equipment or machinery were thoroughly examined, and found to be free from obvious defects and in safe working order. I confirm also that the design and construction of the MVPS and all its associated equipment or machinery complied with the principles and requirements of **BS EN 14010:2003+A1:2009 Safety of machinery - Equipment for power driven parking of motor vehicles. Safety and EMC requirements for design, manufacturing, erection and commissioning stages** and the type approval document, where applicable, with the exception of the following items (if any, please specify).

Exceptions:

The information in this examination report is an accurate record of the examination carried out on the aforementioned date.

Name & Registration No. of
Registered Lift Engineer

Signature

Date