



Our reference 本署檔號 :

(40) in EMSD/LESD 7-2/4

Telephone 電話號碼 :

2808 3861

Your reference 來函檔號 :

Facsimile 圖文傳真 : 2504 5970

5 September 2013

To: All Registered Lift/Escalator Contractors and Engineers

Dear Sirs,

Circular No. 07/2013

Examination of Lifts – Inspection of Suspension System

With a view to achieve better assurance on the lift suspension system (including traction sheave, deflection sheaves, anchorages and suspension ropes) is in good construction and safe working order, new recording requirements for inspection results of suspension system upon (i) completion of new installation (including major alteration works involving ropes/sheaves replacement) and (ii) periodic examination of lifts are added under the Clause 5.3.7a and the Clause 5.5.10a of the Code of Practice for Lift Works and Escalator Works (2012 Edition) (the Works Code) respectively. In addition, an inspection record form for suspension system should be completed and submitted to this Department within one month after completion of the above-mentioned items (i) and (ii). You are required to complete and submit the form via our departmental e-platform which will be available after 15 September 2013. To facilitate the electronic submission, the access procedure of this inspection form is demonstrated in the attached screen shots for the procedure to access the form of "Inspection Record for Suspension System" for your easy reference.

In case of non-compliance found on suspension ropes and/or traction/deflection sheave, photographs must also be provided with your submission. If conditions of suspension system are within the acceptable range (i.e. no need to submit these photographs with the inspection record form), submission of record photographs is optional. You are required to keep all records including photographs, and you may be requested to submit these records and photographs for our sample checking.

The Works Code is planned to be amended by incorporating this new requirement in the Clause 5.3.7a and the Clause 5.5.10a (see attached Amendment No. 1). This amendment will be incorporated in the next edition of the Works Code.

Please note that this new requirement provides practical guidance in respect of the operation and maintenance of lifts and will take effective from 1 October 2013.

Yours faithfully,

A handwritten signature in purple ink, appearing to be 'W.S. CHUI', with a stylized, flowing script.

(W.S. CHUI)

for Director of Electrical and Mechanical Services

c.c. The Director of Housing (Attn.: SM/QM)
 The Director of Buildings
 Director of Architectural Services (Attn: CBSE/2)
 The Lift and Escalator Contractors Association
 The Registered Elevator and Escalator Contractors Association Limited
 The International Association of Elevator Engineers
 The Hong Kong General Union of Lift and Escalator Employees

**Code of Practice
for Lift Works and Escalator Works
(2012 Edition)**

AMENDMENT No. 1 of 2012 Edition

Examination of Lifts – Inspection of Suspension System

(The new requirement is provided practical guidance in respect of operation and maintenance of lifts with effect from 1 October 2013)

Add Part 5: Clause 5.3.7.a and Clause 5.5.10a with the following description:

5.3 Examination of lifts and escalators upon completion of installation

5.3.7a RC or RE should inspect and take records on the suspension system including traction sheave, deflection sheave(s), suspension ropes and their anchorage. In particular, the records should indicate in the Inspection Record Form for Suspension System. Any non-compliance is found on suspension ropes and/or traction/deflection sheave, photographs must also be provided with your submission. You are also required to take and keep photographs for traceable record if conditions of suspension system are within the acceptable range, and to submit these photographs upon request for sample check. The photographs should be taken for the portion of suspension ropes adjacent to drive sheave inside the lift machine room as the lift car is set to main floor and highest landing floor. Depending on site situation and the type of lift, the photographs can also be taken when the concerned person is standing on the lift car top. The photographs can be printed on plain A4 paper or photograph quality papers with size not less than 4R and resolution not less than 8 megapixels. The photographs must be very sharp, clear, good brightness and contrast for showing the texture of wires/strands and conditions of the rope(s) in order to see if any of the following conditions are found:-

- (a) Reduction of ropes diameter;
- (b) Externally visible broken wires;
- (c) Thick layer of residual lubricant and debris in groove of the sheaves and ropes;
- (d) Abraded red particles exuding from the rope strand gaps and distributing to the sheaves;

- (e) Unacceptable wear and groove shape (V-grooves, U-grooves with undercut or ground grooves) on the sheaves.

5.5 Periodic examination of lifts or escalators

5.5.10a. RC or RE should inspect and take records on the suspension system including traction sheave, deflection sheave(s), suspension ropes and their anchorages. In particular, the records should indicate in the Inspection Record Form for Suspension System. Any non-compliance is found on suspension ropes and/or traction/deflection sheave, photographs must also be provided with your submission. You are also required to take and keep photographs for traceable record if conditions of suspension system are within the acceptable range, and to submit these photographs upon request for sample check. The photographs should be taken for the portion of suspension ropes adjacent to drive sheave inside the lift machine room as the lift car is set to main floor and highest landing floor. Depending on site situation and the type of lift, the photographs can also be taken when the concerned person is standing on the lift car top. The photographs can be printed on plain A4 paper or photograph quality papers with size not less than 4R and resolution not less than 8 megapixels. The photographs must be very sharp, clear, good brightness and contrast for showing the texture of wires/strands and conditions of the rope(s) in order to see if any of the following conditions are found:-

- (a) Reduction of ropes diameter;
- (b) Externally visible broken wires;
- (c) Thick layer of residual lubricant and debris in groove of the sheaves and ropes;
- (d) Abraded red particles exuding from the rope strand gaps and distributing to the sheaves;
- (e) Unacceptable wear and groove shape (V-grooves, U-grooves with undercut or ground grooves) on the sheaves.


Screen Shot for the procedure to access the form of "Inspection Record for Suspension System"

1. Select "Lift e-Platform"

e-Platform for Reporting Periodic Test / Examination Schedule

[繁體中文](#) [English](#)

[Lift e-Platform](#)
[Escalator e-Platform](#)



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	Name	Email	Phone
Admin Support staff	Mr. Lee	leekw@emsd.gov.hk	64621896
IT Support staff	Mr. Li	patrickli@emsd.gov.hk	28083437

2. After login, select "Inspection Record for Suspension System"

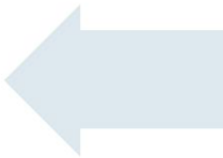

Lift e-Platform for Reporting Periodic Test / Examination Schedule

[繁體中文](#) [English](#)

RLC Name:

Username: [Logout](#)

[Change password](#)



RLCs Report

(New Building)FORM LE2

(Existing Building)FORM LE2

Maintenance Schedule Upload

Inspection Record for Suspension System

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	Name	Email	Phone
Admin Support staff	Mr. Lee	leekw@emsd.gov.hk	64621896
IT Support staff	Mr. Li	patrickli@emsd.gov.hk	28083437

3. Input the “Inspection Record”

Inspection Record Form for Suspension System

General Information:

RC No.:	RE No.:	Location ID:	Examination Date (DD/MM/YYYY):
Installation Address:			Lift No.:
Project No:		Project Name:	

Information of the Suspension Ropes

no. of ropes:	Type:	Nominal Diameter (mm):
	x	
Make/Model:	Certification No.:	Installation Date (DD/MM/YYYY):

Information of the Traction Sheave:-

Pitch Diameter of Traction Sheave (mm)	
Pitch Diameter of Deflection Sheave (mm)	

Inspection Records of Traction Sheave and Deflection Sheave (Electric Lift Only)

1.	<input type="checkbox"/> Pass - with no visible wear & tear found of all sheaves
2.	<input type="checkbox"/> Pass – Traction Sheave with wear& tear within accepable range Measured vertical distance from the top of the rope to the rim of the Traction Sheave mm (for deepest groove)
3.	<input type="checkbox"/> Pass - Deflection Sheave(s) without abnormal noise and uneven wear
4.	<input type="checkbox"/> Fail Traction Sheave -to be <input type="radio"/> regrooved <input type="radio"/> replaced due to following reason(s):- <input type="checkbox"/> (i) bottoming of undercut groove <input type="checkbox"/> (ii) failure of traction test with load <input type="checkbox"/> (iii) reaching discard criteria of lift manufacturer <input type="checkbox"/> (iv) Others, please specify:
5.	<input type="checkbox"/> Fail Deflection Sheave- to be <input type="radio"/> regrooved <input type="radio"/> replaced due to following reason(s):- <input type="checkbox"/> (i) bottoming of undercut groove <input type="checkbox"/> (ii) reaching discard criteria of lift manufacturer <input type="checkbox"/> (iii) Others, please specify:
	Insert photo 1 (<3 MB): <input type="button" value="選擇檔案"/> 未選擇檔案
	Insert photo 2 (<3 MB): <input type="button" value="選擇檔案"/> 未選擇檔案
	Insert photo 3 (<3 MB): <input type="button" value="選擇檔案"/> 未選擇檔案

Inspection Records of Anchorages

1.	Type of Anchorages:	Car :

	Counterweight: <input type="text"/>
2.	The anchorages have been examined and found in good working condition <input type="radio"/> Pass <input type="radio"/> Fail

Inspection Records of Suspension Ropes

1.	<input type="checkbox"/> Pass - with no visible wear & tear found									
2.	<input type="checkbox"/> Pass - with acceptable rouging measured length <input type="text"/> (m) when lift is at <input type="text"/> (floor)									
3.	<input type="checkbox"/> Pass - with acceptable reduction in diameter									
	Rope no.	1	2	3	4	5	6	7	8	9
	Measured Diameter (mm)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.	<input type="checkbox"/> Pass - with acceptable broken wires									
	Rope No.	1	2	3	4	5	6	7	8	9
	No. of broken wires per rope lay	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Location	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.	<input type="checkbox"/> Fail - Has to be replaced due to following reason(s):- <input type="checkbox"/> (i) severe rusting or extensive rouging <input type="checkbox"/> (ii) reduction in diameter <input type="checkbox"/> (iii) broken wires <input type="checkbox"/> (iv) Others, please specify: <input type="text"/>									
	Insert photo 4 (<3 MB):	<input type="button" value="選擇檔案"/> <input type="button" value="未選擇檔案"/>								
	Insert photo 5 (<3 MB):	<input type="button" value="選擇檔案"/> <input type="button" value="未選擇檔案"/>								
	Insert photo 6 (<3 MB):	<input type="button" value="選擇檔案"/> <input type="button" value="未選擇檔案"/>								

* If photos are provided, the photos should be taken for the portion of suspension ropes adjacent to drive sheave inside the lift machine room as the lift car is set to main floor and highest landing floor. Depending on site situation and the type of lift, the photos can also be taken when the concerned person is standing on the lift car top.