

Our reference 本署檔號 :
(38) in EMSD/LESD 7-2/4A Pt.II

Your reference 來函檔號 :

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1 December 2020

To: All Registered Escalator Contractors

Dear Sirs,

Circular No. 15/2020 **Territory-wide Fleet Check for Flexible Couplings of Escalators**

An escalator rollback incident happened recently at a shopping mall. The ascending escalator not equipped with an auxiliary brake rolled back suddenly and stopped upon evacuation of about a dozen of passengers who were on the escalator. Luckily no injuries were caused in the incident.

Our investigation revealed that the elastomeric elements of the flexible coupling between the motor and the gearbox of the incident escalator had completely vanished, and the metallic webs/vanes between the driving and driven ends of the coupling worn out, leading to rotation of the main drive under gravitational effect of the passengers free from holding torque from the motor drive as a restraint.

Notwithstanding whether an auxiliary brake has been provided or not, all flexible couplings of escalators must receive proper checking and maintenance according to the manufacturer's instructions. We have reviewed the failure case and drawn up the immediate measures with the Lift and Escalator Contractors Association. All registered escalator contractors (hereinafter as "REC") have already been requested to fleet check the flexible coupling of escalators under their maintenance. The fleet check consists of two tasks, namely, (A) torsional backlash checking of flexible coupling¹ (hereinafter as "Backlash Checking") and (B) inspection² of the internal parts of the flexible coupling (hereinafter as "Disassembling Inspection").

While the Backlash Checking of the escalators has been completed in November 2020,

¹ Such checking would require turning the handwheel of the motor unit to gauge the torsional backlash of the coupling and comparison of such torsional backlash against the allowable tolerance.

² Such inspection would require disassembling the driving motor from the gearbox/driven components to inspect the condition of the internal parts of the flexible coupling. Where inspection can be made without disassembling the driving motor and gearbox, no disassembling inspection is required.

all RECs have been requested to complete the Disassembling Inspection of those escalators using flexible couplings but not equipped with auxiliary brake by 17 January 2021. You are hereby reminded to prioritize the Disassembling Inspection with aged escalators and those not yet conducted brake load test, and ensure all such escalators of critical venues be completed prior to Christmas this year. You are also reminded to keep proper records/photos showing the results of the fleet check of the escalators. The records/photos are to be provided for sight upon our request.

You are reminded to sustain the safety performance of escalators and their associated equipment or machinery through proper maintenance, checking examination and repair. This department will, from time to time, carry out inspections and take necessary enforcement actions against relevant parties should contravention to the Lifts and Escalators Ordinance (Cap. 618) are identified.

If you have any question on this subject, please contact our officer on telephone number 2808 3547.

Yours faithfully,



(LAU Lik-kee)

for Director of Electrical and Mechanical Services

c.c.

Director of Architectural Services (Attn: CBSE/2)
Director of Buildings
Director of Housing (Attn: SM/QM)
The Lift and Escalator Contractors Association
The Registered Elevator and Escalator Contractors Association Limited
The International Association of Elevator Engineers (HK-China Branch)
The Hong Kong Institution of Registered Engineers (Lift & Escalator)
The Hong Kong General Union of Lift and Escalator Employers
The Building Services Operation and Maintenance Executives Society
The Hong Kong Association of Property Management Companies