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(72) in EMSD/LESD 7-2/4A Pt II

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9 February 2023

To: All Registered Lift/Escalator Contractors
All Registered Lift/Escalator Engineers

Dear Sirs,

Circular No. 1/2023 Statistics of Reportable Lift/Escalator Incidents of 2022

This circular disseminates the statistics of reportable lift/escalator incidents of 2022 for trade practitioners' reference and introduction of appropriate improvement measures. The breakdown figures of the reportable incidents are given in the attached summary tables.

There were 267 reportable lift incidents and 1 839 reportable escalator incidents in 2022. The number of reportable lift incidents per 1 000 lifts in 2022 was 30% lower than that in 2021, whereas the number of escalator incidents per 100 escalators in 2022 was 3.9% lower than that in 2021. The lift/escalator incident rates in 2022 were similar to those in years before the epidemic. We hope the trade will continue to join hands to suppress the incident rates towards resumption to normalcy of our society. Most of the incidents in 2022 were due to passengers' behaviors such as inattentive collisions with closing/opening doors in lifts or loss of balance in escalators. 16 reportable lift incidents and eight reportable escalator incidents were due to equipment faults, which resulted in 20 injuries. The majority were due to differential levelling of lift car and emergency stop of the escalator caused by failures of electronic components and anomalies associated with escalator handrails (including broken steel cords going through the surface and sudden stop of handrail operation). At the same time, there were four industrial incidents related to escalator works recorded in 2022.

Closer attention in carrying out lift/escalator works and quality checking can help eliminate those incidents due to equipment failure, whereas greater awareness of the responsible persons (RPs) and users can help lower the number of cases due to passenger behaviors. Please help remind your frontline staff to pay attention to lift/escalator works and arouse the attention of RPs and users of safe use of lifts/escalators.

We hope the sharing of the incident statistics will alert practitioners to be more attentive and facilitate the trade or relevant interested parties to exert efforts in devising appropriate measures and innovative ideas/solutions for avoiding lift/escalator incidents.

If you have any questions on the subject of this letter, please contact our officer on telephone number 2808 3174.

Yours faithfully,



(LAU Lik Kee)

for Director of Electrical and Mechanical Services

Encl.

c.c. 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 Employees

Table 1 – 2022 Lift Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	267
No. of incidents due to equipment fault	16 ^{Note 2}
No. of injuries due to equipment fault	12
No. of fatalities due to equipment fault	0
No. of incidents due to passenger behavior	251
No. of injuries due to passenger behavior	249
No. of fatalities due to passenger behavior	0
No. of incidents during lift works	0
No. of injuries during lift works	0
No. of fatality during lift works	0

Remarks

Note 1 The number of incidents is based on the dates when the respective incidents were made known to EMSD.

- Note 2
- (i) Passenger tripping due to levelling difference of lift car at landing arisen from leveling device malfunction (11 cases).
 - (ii) Emergency stop of lift operation due to malfunction of a printed circuit board.
 - (iii) Emergency stop of lift operation due to failure of contactor controlling the operation of the drive motor.
 - (iv) Occurrence of unintended car movement due to failure of the brake system.
 - (v) Abnormal door closing due to malfunction of the door re-opening device.
 - (vi) Breakage of four suspension ropes of a lift.

Table 2 – 2022 Escalator Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	1 839
No. of incidents due to equipment fault	8 ^{Note 2}
No. of injuries due to equipment fault	8
No. of fatalities due to equipment fault	0
No. of incidents due to passenger behavior	1 701
No. of injuries due to passenger behavior	1 772
No. of fatalities due to passenger behavior	0
No. of incidents during escalator works	4
No. of injuries during escalator works	4
No. of fatalities during escalator works	0
No. of incidents due to external factor	126
No. of injuries due to external factor	133
No. of fatalities due to external factor	0

Remarks

Note 1 The number of incidents is based on the dates when the respective incidents were made known to EMSD.

- Note 2
- (i) Emergency stop of the escalator due to malfunction of a motor speed detection device / brake coil / relay of non-reversal device (3 cases).
 - (ii) Protruded steel wire(s) from the surface of the handrail of an escalator (2 cases).
 - (iii) Sudden stop of handrail due to improper adjustment of tensioning device / breakage of pressure belt roller bearing (2 cases).
 - (iv) Unsynchronized handrail operation of an escalator due to malfunction of handrail drive unit.