



**TRAPPED BY LIFT DOOR  
ACCIDENT**



An accident involving a passenger lift occurred in May 2016 approximately 8.16 pm. The accident has caused injuries to passenger's leg and arm as a result of getting trapped between the lift door. During the incident, as the lift reached the level 2 and a few the passengers (including the victims) have entered into the lift. While the victim entered the lift, it suddenly moves down with the lift doors closing and have caused the victim's leg trapped. While trying to free his leg, his hands were trapped with lift still moving down. The lift stopped at the G floor and other passengers helped to release the victim's hand.

There are many factors that could cause the lift to move itself such as the failure of the brake to hold the lift in position, the traction force between the rope and sheave, damage to the control unit and many others.

**Corrective and Preventive Action**

The followings are the proposed action:

1. Adhere to the provisions of the legislation under the Factories and Machinery (Electric Passengers and Goods Lift) Regulations, 1970;
2. Any maintenance work must comply with the provisions stated in the manual operation / maintenance and international standards;
3. Person in charge must carry out inspections and tests on equipment each time after maintenance work or repairs have been carried out;
4. The electromagnetic brake mechanism must be tested and inspected every three months by a competent person who is registered with the department. Any maintenance work such as brake adjustment and exchange of parts should be monitored by the Competent Persons. Brake system efficiency test must be carried out each time the maintenance of the system is carried out. Observations, monitoring and testing of the Competent Persons should be recorded in detail in the lift's logbook;
5. Competent Firms need to ensure that proper lubrication is used on any moving parts with reference to the lift manufacturer's manual and related details of maintenance required (eg type of maintenance, parts / point of maintenance, lubrication type, frequency , etc.);
6. The proper documentation should exist in the implementation of these. It will also provide transparency and enable the audit to ensure the integrity of maintenance program ; and

7. The supervisor must monitor and inspect work performed and to assess the understanding of technicians who carry out the task of ensuring that the work carried out perfectly.

**References:**

1. Howkins, R.E. 2006. Lift modernisation design guide. Elevator World, Alabama, USA.
2. Annet, F.A. 1989. Elevators – electric and electrohydraulic elevators, escalators, moving sidewalks, and ramps. McGraw-Hill, New York, USA.
3. Janovsky, L. 1999. Elevator mechanical design, 3rd edition, Elevator World, Alabama, USA.