



Safety Specifications for Lifts

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Lifts History:

- [Archimedes](#) built his first elevator in 236 BC.
- In later historical periods, elevators were installed in the Sinai [monastery](#) of Egypt.
- In 1000, [al-Muradi](#) described the use of an elevator-like lifting device in Spain.
- In 1743 [Louis XV of France](#) had a so-called 'flying chair' built for one of his mistresses at the [Chateau de Versailles](#).





Lifts History:

- in 1823, Burton and Horner, built and operated the "ascending room". It elevated paying customers to a considerable height in the centre of London, allowing them a magnificent panoramic view of the city centre.
- [Henry Waterman](#) of New York is credited with inventing the "[standing rope control](#)" for an elevator in 1850.
- In 1852, [Elisha Otis](#) introduced the safety elevator, which prevented the fall of the cab if the cable broke.
- The first electric elevator was built by [Werner von Siemens](#) in 1880 in Germany





Lifts History:





Lifts Specifications:

- Architectural.
- Mechanical.
- Electrical.
- Structural.
- Safety.





Lifts Specifications:

- **Safety.**

1. Cabinet Dimensions should not be less than 1.4 m x 1.4 m.
2. Door opening should not be less than 0.82 m.
3. Intrnal & external doors.
4. Doors speed not exceed 0.3 m/s.





Lifts Specifications:

- **Safety.**

5. Maneuvering space out side lifts should not be less than 1.8 m
6. At least 2 Door sensors should be available (at heights 0.4 m & 1.0 m).
7. Door opening button should provided.





Lifts Specifications:

- **Safety.**

8. Buttons should not be higher than 1.3 m and at least 0.6 m away from the door.
9. Emergency button should be provided.
10. Communication media Should be provided.

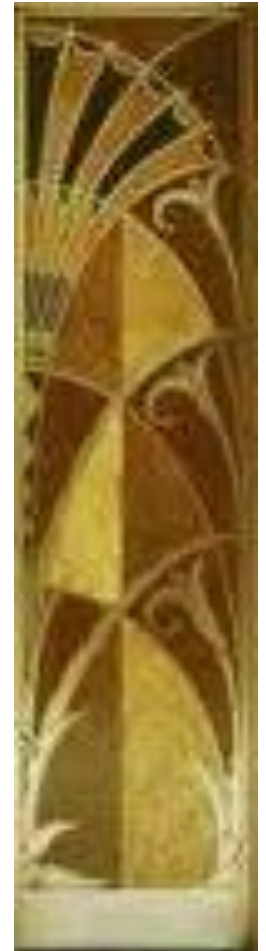




Lifts Specifications:

- **Safety.**

11. Hand rails must be provided at 1.0 m high.
12. Disabled communication fittings must be provided.
13. Ventilation fan.
14. Cabinet availability sensor.





Lifts Specifications:

- **Safety.**

15. Speed sensor.

16. Speed breaks.

17. Accidents bumps.

18. Cabinet enclosure should hold passengers in case of damages or ropes cuts.





Lifts Specifications:

- **Safety.**

19. Emergency lights.

20. Smoke detector.

21. Emergency power supply enough to re – direct the lift to the access floor.

22. Manual re – operation in case of stoppage.





Lifts Specifications:

- **Safety.**

23. Emergency lights.

24. Smoke detector.

25. Emergency power supply enough to re – direct the lift to the access floor.

26. Manual re – operation in case of stoppage.





Lifts Specifications:

- **Safety.**

27. Emergency power for the A/C of the machine room.
28. Safety key locks.
29. Floors names at lift lobbies.
30. Signage for not using lifts in case of emergencies.





Lifts Specifications:

- **Safety.**

31. Emergency exit sign in lifts lobby.

32. Emergency teleph. nos. should be clearly stated in & out side the lifts.

33. Preventive & corrective maintenance.

34. Maintenance log – book.





Thanks

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