If a tread chain breaks, a broken-chain sensing device should cut the power. Where an escalator has tightening devices operated by tension weights, provision should be made to retain these weights in the escalator truss if they should fall

Each escalator should have an electrically released and mechanically applied brake capable of stopping the fully loaded escalator when it is traveling either up or down The brake should stop the escalator automatically if any safety devices function.

The brake should be mounted on the driving machine or on the main drive shaft of the escalator. If the driving machine is connected to the main drive shaft by a chain, a device that will cause application of the brake on the main drive shaft if the drive chain parts should be provided.

Machinery

Every escalator machine room should have a light that can be lighted without passing over or reaching over any part of the machinery Reasonable access to the interior of the escalator should be provided for inspection and maintenance For the protection of maintenance personnel, all chains in escalator machinery compartments should be guarded

While bearings on modern installations are sealed and require no oiling, the chains do require lubrication Care should be taken not to overlubricate An oil pan should be provided in the bottom of the truss to catch oil or grease that may drip from moving parts, as well as dust and dirt dropping between the treads

The oil pan should be cleaned periodically to eliminate any fire hazard from the accumulated oil-soaked dust and dirt A brush available for this purpose can be attached to a step axle and drawn down over the drip pan to brush all the foreign matter to the lower end of the truss The sweepings then can readily be removed Reversing the unit returns the brush to the top, where it can be disconnected

The moving handrail, if of the common canvas duck and rubber construction, will show some stretch over a period of time It should be checked at intervals, and the handrail drive adjustment should be used to take up the slack.

All parts of escalators and their driving machinery should be inspected at regular intervals and well maintained All safety devices should be tested for proper functioning

Protection of riders

Most escalators are installed in public places, and their principal hazards arise from misuse by the public Escalators have been developed to a high degree of safety, and their accident record, in general, is good.

Most escalator accidents occur when spike heels, fingers, or toes are caught between the surface grooves or slots on the treads and the combplate. The Elevator Code limits the width of each slot to not more than ¼ in , and the depth to not less than ⅜ in , with a center-to-center spacing of not more than ⅝ in. between adjoining slots

In some accidents, edges of shoe soles have been caught between the step and the vertical side member (skirt guard). The Elevator Code limits this clearance to 3/16 in on each side and limits the sum of the clearances on the two sides to ¼ in.

The Elevator Code requires that each balustrade have a handrail moving in the same direction and at substantially the same speed as the steps Each moving handrail is to extend at normal handrail height not less than 12 in. beyond the points of the combplate teeth at the upper and lower landings Hand or finger guards are to be provided at the point where the handrail enters the balustrade

In some localities, barefoot passengers have been injured, and signs warning barefoot persons not to ride the escalator have been posted Umbrella tips frequently are caught between the grooves and the combplate, and this type of accident occasionally results in minor injuries and in damage to equipment

Many accidents have resulted from attempts to handle baggage on escalators Suitcases and handbags should not be placed on the steps and, if carried by hand, always should be held parallel to the run of the escalator

Escalator treads and landings should be of incombustible material affording secure foothold.

Some riders, through inexperience or in-