



Elevator Safety Program
 PO Box 14470
 Salem, Oregon 97309
 Tel: (503) 373-1298
 Fax: (503) 378-4101

Acceptance Inspection Checklist

Escalator Checklist

Code References

- ASME A17.1, 2004 – Effective 4/1/2005
- Oregon Structural Specialty Code 2003 – Effective 10/1/2004
- Oregon Electrical Specialty Code 2005 – Effective 4/1/2005
- Oregon Plumbing Specialty Code – Effective 4/1/2005
- NFPA 72, 2002; Fire Alarm Systems
- NFPA 13, 2002; Sprinkler Systems

Note: Potential code violations are not necessarily restricted to this checklist.

The comments used in this checklist give direction only and are not intended to circumvent actual code language. Please refer to the appropriate standard as necessary to clarify any code issues that may arise during this inspection.

The codes referenced in this checklist are applicable to the elevator installation as of the effective date of April 1, 2005. If the structural or electrical permit was issued prior to April 1, 2005, the previous edition of the elevator code may be used to resolve code conflicts providing a the issue date for the electrical or structure permit can be verified by the elevator inspector.

While the Elevator Safety Program does not directly regulate the building code, it is permissible to question code issues and request clarification or validation from the local building department. The elevator inspector cannot require any corrections unless supported by the local building department in such cases.

Site Name:			Code Date: ____/____/____
Contractor:			
Elevator ID: ESC- _____ (Up unit)		ESC- _____ (Dn unit)	
1 st Inspection Date	2 nd Inspection Date	3 rd Inspection Date	4 th Inspection Date
____/____/____	____/____/____	____/____/____	____/____/____

DESCRIPTION	A17.1	Comments	Up Dn
EXTERNAL			
General Fire Protection	6.1.1.1	1) Ensure fire protection is provided if required by the building code.	<input type="checkbox"/> <input type="checkbox"/>
Geometry (See Appendix I)	6.1.3.1	1) Ensure angle does not exceed 30° ? 1° a) Measure at the centerline of the steps.	<input type="checkbox"/> <input type="checkbox"/>
Balustrades	6.1.3.2	2) General a) Maximum raised moldings; 6.4 mm (0.25 in.) b) Gaps between interior panels cannot exceed 5 mm (2¼ in.) c) Glass or Plastic..... orN/A <input type="checkbox"/> i) Comply with ANSI Z97.1; or ii) 16 CFR Part 1201 3) Interior Low Deck:..... a) Maximum 150 mm (6 in.) from vertical surface of skirt to balustrade. b) Internal deck must be between 20° & 30°. c) Maximum flat deck surface from balustrade; 35 mm (1¼ in.)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Construction	6.1.3.3.1	1) Escalators not equipped with dynamic skirts, the balustrade on the step side shall have no areas or mouldings depressed or raised more than 6.4 mm (0.25 in.) from the parent surface 2) Escalators equipped with dynamic skirts, the balustrade on the step side shall have no areas or mouldings parallel to the direction of travel that are depressed or raised more than 12 mm (0.47 in.) from the parent surface 3) All escalators, the depressed or raised areas or moldings shall have boundary edges beveled or rounded 4) The balustrade shall be totally closed, except..... a) where the handrail enters the newel base (see 6.1.3.4.3). b) gaps between interior panels shall be not wider than 5 mm (0.19 in.). The edges shall be rounded or beveled. c) where the dynamic skirt panels enter the balustrade [see 6.1.3.3.7(c)]. 5) The width between the balustrade interior panels in the direction of travel shall not be changed.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Interior Low Deck	6.1.3.3.4	1) The interior low deck, where provided, shall conform to the following (see Nonmandatory Appendix I, Fig. I-1): a) The width from the vertical face of the interior panel to the vertical plane of the skirt panel, or dynamic skirt panel cover, where provided, shall not exceed 150 mm (6 in.). b) The angle between the surface of the deck and the plane of the nose line of the steps shall be not less than 20 deg nor more than 30 deg. c) A horizontal section shall be permitted immediately adjacent to the interior panel. It shall be not greater than 35 mm (1.25 in.). d) The deck and the dynamic skirt panel cover, where provided, at the point closest to the step shall withstand a force of 900 N (200 lbf) perpendicular to the line of attachment of the element without detachment or permanent deformation. i) The force shall be applied to an area of 645 mm ² (1 in. ²).	N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Demarcation Lights	6.1.6.7	2) Demarcation Lights a) Color, Green b) Minimum 2 lamps each landing. c) Maximum 400 mm (16 in.) from combplate d) Operational when unit is running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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DESCRIPTION		A17.1	Comments	Up	Dn
EXTERNAL					
Handrails 		6.1.3.4	1) Ensure each handrail is moving at the same speed as the steps. 2) Ensure handrail: a) Minimum 100 mm (4 in.) horizontally from adjacent surfaces; and b) Minimum of 25 mm (1 in.) vertically from adjacent surfaces. c) Center line of handrail not more than 240 mm (9.5 in.) from the edge of the step. d) Extends 300 mm (12 in.) beyond combplates. e) Vertical height from step nose to top of handrail shall be: i) not less than 900 mm (35 in.) ii) not more than 1000 mm (39 in.) iii) maximum horizontal clearance between handrail lip and stand 10 mm (3/8 in.)	<input type="checkbox"/>	<input type="checkbox"/>
Entrance and Egress		6.1.3.6.4	1) Safety zone: a) Minimum width is the distance between handrail centers + 200 mm (8 in.). b) Minimum depth of the zone is twice the width as measured from end of the newel. (2 x width of handrails on center)	<input type="checkbox"/>	<input type="checkbox"/>
	mm			<input type="checkbox"/>	<input type="checkbox"/>
H/R ?				<input type="checkbox"/>	<input type="checkbox"/>
	in.			<input type="checkbox"/>	<input type="checkbox"/>
		6.1.3.6.3	2) Ensure adjacent floor surfaces do not abruptly change more than 6 mm (1/4 in.).	<input type="checkbox"/>	<input type="checkbox"/>
2x H/R ?		6.1.3.12	3) Minimum headroom; 2130 mm (84 in.) measured from the step nose, landing plates and landings	<input type="checkbox"/>	<input type="checkbox"/>
Combplate		6.1.3.6.1	1) Combplates shall: a) Be meshed with the step slots so points of teeth are always below the tread surface. b) be vertically adjustable c) be readily replaceable comb teeth sections d) not make step contact with 160 kg (350 lbs.) applied to an area 200 mm (8 in.) x 300 mm (12 in.) centered on the plates.	<input type="checkbox"/>	<input type="checkbox"/>
		6.1.3.6.2	2) Have a clear visual contrast between step & comb.	<input type="checkbox"/>	<input type="checkbox"/>
Deck Barricade		6.1.3.3.11	1) Required where: a) outer deck width exceeds 125 mm (5 in.) b) on two parallel units the aggregate width of the adjoining outer decks exceeds 125 mm (5 in.) c) extend to a height of 100 mm (4 in.) below top of handrail. d) may be constructed of glass or plastic e) must be equipped with tamper-proof fasteners f) dual units: if the common low deck is 400 mm (16 in.) or more, barricades must be evenly spaced up the incline at 4.6 m (15 ft.) as measured on the line parallel to the direction of travel.	<input type="checkbox"/>	<input type="checkbox"/>

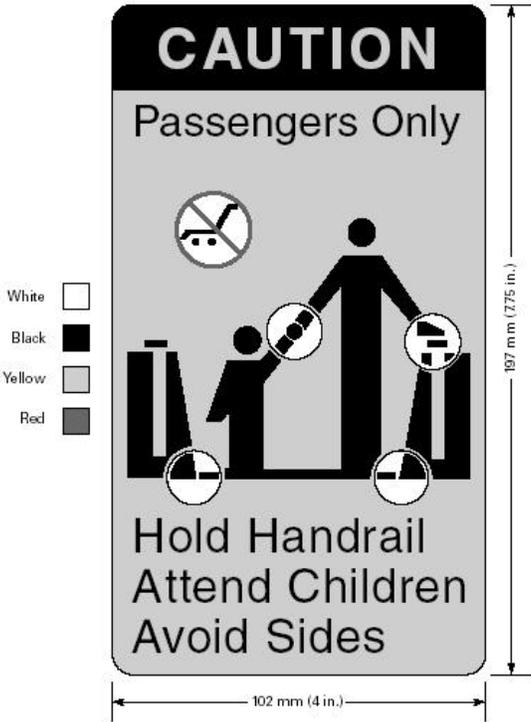
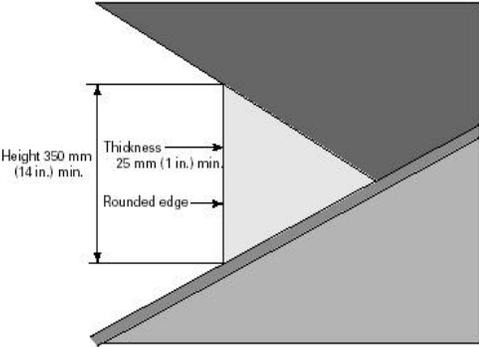
DESCRIPTION	A17.1	Comments	Up Dn
EXTERNAL			
Caution Signs	6.1.6.9.1	1) The sign must contain the following wording: a) Caution b) Passengers Only c) Hold Handrail d) Attend Children e) Avoid Sides 2) Maximum ¼" thick, rounded/beveled corners and sides.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		 <p style="text-align: center;">102 mm (4 in.)</p> <p style="text-align: center;">197 mm (7.75 in.)</p>	
	6.1.6.9.2	3) Additional caution signs are allowed but must be: a) not less than 3000 mm (10 in.) horizontally from end of newel. b) location must not be such that it will not cause persons to pause or stop just prior to boarding escalator	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

FIG. 6.1.6.9.1 CAUTION SIGN

DESCRIPTION	A17.1	Comments	Up	Dn	
Speed	6.1.4.1	Maximum rated speed is 0.5 m/s (100 fpm).	<input type="checkbox"/>	<input type="checkbox"/>	
		Indicate: m/s <input type="checkbox"/> or fpm <input type="checkbox"/>			
		Up Unit	Down Unit		
Steps	6.1.3.5.1	1) Material a) made of metal (except magnesium) b) be in horizontal alignment c) provide secure footing	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.5.2	2) Dimensions..... ... a) have a minimum depth of 400 mm (15¾ in.) b) have a maximum rise of 220 mm (8½ in.) c) Tread Width: i) minimum 560 mm (22 in.) ii) maximum 1020 mm (40 in.)	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.5.3	3) Cleated risers are required.	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.5.4	4) Maximum clearance between treads; 6 mm (1/4 in.)	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.5.5	5) Slotting of Step Treads..... a) maximum 6.5 mm (1/4 in.) width tread slots b) maximum 9.5 mm (3/8 in.) on center c) minimum 9.5 mm (3/8 in.) deep	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.5.6	6) Demarcation Lines..... a) Located at the back and sides of the step b) Yellow in color	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.3.6.5	c) Minimum of 38 mm (1½ in.) width d) Maximum of 50 mm (2 in.) width	<input type="checkbox"/>	<input type="checkbox"/>	
		7) Flat Steps..... a) minimum 2 b) maximum 4	<input type="checkbox"/>	<input type="checkbox"/>	
	Ceiling Intersection Guard	6.1.3.3.9	1) High deck balustrades, ceiling guards are required where: a) Clearance between outside edge of deck and the ceiling is 300 mm (12 in.) or less. b) The projected intersection of the outside deck and ceiling is 600 mm (24 in.) or less from the ? of the handrail. 2) Low deck balustrades, ceiling guards are required where:..... a) where the ? of the handrail is less than 350 mm (14 in.) from the ceiling. 3) Guard..... a) Vertical edge shall be a minimum of 350 mm (14 in.) in length b) Inside surface shall be flush with the face of the wellway. c) Leading edge shall be not less than: i) 25 mm (1 in.) wide ii) 12 mm (0.5 in.) radius	<input type="checkbox"/>	<input type="checkbox"/>
					
Starting Switches	6.1.6.1.1	1) Automatic starting is prohibited.	<input type="checkbox"/>	<input type="checkbox"/>	
	6.1.6.2.1	2) Start Switch Location: a) Located within sight of the steps. b) Keyed operated; momentary make/break type c) Located within reach of the stop switch d) Clearly marked "DOWN"-"RUN"-"UP" in this order. i) Rotate clockwise to run down to run to up ii) Unit cannot start unless all start switches are initially in the "RUN" position	<input type="checkbox"/>	<input type="checkbox"/>	
	8.1	e) Key shall be Group 2 Security	<input type="checkbox"/>	<input type="checkbox"/>	
	8.6.10.5	3) Start-up procedure is required to be in place by the owner:	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

DESCRIPTION	A17.1	Comments	Up	Dn
Speed Governor	6.1.6.3.2	1) The governor shall operate at no greater than 140% of rated speed. 2) Manually reset type 3) Not required with AC squirrel cage motor connected directly to driving machine.	<input type="checkbox"/>	<input type="checkbox"/>
Broken Step Chain Device	6.1.6.3.3	1) Actuated when step chain breaks; or 2) If chain sags when no auto-tension device is provided. 3) Manually reset type	<input type="checkbox"/>	<input type="checkbox"/>
Broken Drive Chain Device	6.1.6.3.4	1) Must be provided if driving machine is connected to main drive shaft via chain. 2) Manually reset type	<input type="checkbox"/>	<input type="checkbox"/>
Machinery Space Stop Switch	6.1.6.3.5	1) Required in each machinery space for interior access: a) Upper End & Lower End b) Have a red operating handle or button c) Be conspicuously marked "STOP" and "RUN" d) Have contacts that are positively opened mechanically	<input type="checkbox"/>	<input type="checkbox"/>
Skirt Obstruction Switch	6.1.6.3.6	1) Devices to be located on the upper and lower ends and must activate prior to object striking combplate. a) Upper End & Lower End	<input type="checkbox"/>	<input type="checkbox"/>
Escalator Egress Restriction Device	6.1.6.3.7	1) If restrictors are used that would prohibit the free and continuous exiting of passengers a means must be provided to shut down the escalator when activated. 2) The device must remove power from escalator upon start of closing.	<input type="checkbox"/>	<input type="checkbox"/>
Reversal Stop Device	6.1.6.3.8	1) Means shall be provided to cause the electric power to be removed from the driving-machine motor and brake in case of reversal of travel while the escalator is operating in the ascending direction. 2) The device shall be of the manual-reset type.	<input type="checkbox"/>	<input type="checkbox"/>
Step Upthrust Device	6.1.6.3.9	1) Means shall be provided in the passenger-carrying line of the track system to detect a step forced upward in the lower transition curve at or prior to the point of tangency of the horizontal and curved track. 2) The means shall actuate when the riser end of the step is displaced upward more than 5 mm (0.20 in.) at the lower landing. Actuation of the means shall cause power to be removed from the driving-machine motor and brake. 3) The escalator shall stop, before the detected step reaches the combplate with any load up to brake rated load with escalator running [see 6.1.3.9.3(a)(2) and (b)(2)].	<input type="checkbox"/>	<input type="checkbox"/>
Disconnected Motor Safety Device	6.1.6.3.10	1) Required when the motor is not connected to the gear reducer by a continuous shaft, mechanical coupling or toothed gear. 2) Manually reset type	<input type="checkbox"/>	<input type="checkbox"/>
Step Level Device	6.1.6.3.11	1) The device is to detect a minimum of 3 mm (1/8 in.) downward drop of the step from horizontal: a) located at the top & bottom ends b) manually reset type	<input type="checkbox"/>	<input type="checkbox"/>

Handrail Entry Device	6.1.6.3.12	<p>1) A handrail entry device shall be provided at each newel. It shall be operative in the newels in which the handrail enters the balustrade.</p> <p>a) It shall be of the manually reset type and shall cause the escalator to stop by removing power from the driving machine motor and brake.</p> <p>b) It shall operate in either of two ways:.....</p> <p>i) if an object becomes caught between the handrail and the handrail guard; or</p> <p>ii) if an object approaches the area between the handrail and the handrail guard.</p> <p>2) For those units that rely on an opening of the balustrade to prevent entrapment, all handrail entry devices shall be operative whenever the handrails are operating.</p>	<p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>.....</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p>
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DESCRIPTION	A17.1	Comments	Up Dn
Comb-Step Impact Device	6.1.6.3.13	1) Devices shall be provided that will cause the opening of the power circuit to the escalator driving machine motor and brake if either <ul style="list-style-type: none"> a) a horizontal force not greater than 1 780 N (400 lbf) in the direction of travel is applied at either side, or not greater than 3 560 N (800 lbf) at the center of the front edge of the combplate; or b) a resultant vertical force not greater than 670 N (150 lbf) in the upward direction is applied at the center of the front of the combplate. c) These devices shall be of the manual-reset type. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Stop Switch in Inspection Controls	6.1.6.3.15	1) A stop switch conforming to the following requirements shall be provided when required by 6.1.6.2.2: <ul style="list-style-type: none"> a) when opened ("STOP" position), cause the electric power to be removed from the escalator driving-machine motor and brake; b) be of the manually opened and closed type; c) have red operating handles or buttons; d) be conspicuously and permanently marked "STOP," and shall indicate the "STOP" and "RUN" positions; and e) shall have contacts that are positively opened mechanically and their opening shall not be solely dependent on springs. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Dynamic Skirt Panel Obstruction Device	6.1.6.3.16	1) Means shall be provided to cause the electric power to be removed from the escalator driving-machine motor and brake if an object becomes caught between the dynamic skirt panel and the dynamic skirt panel cover in the upper or lower transition zone. 2) The device shall be of the manual-reset type.	<input type="checkbox"/> <input type="checkbox"/> N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Step Lateral Displacement Device (Curved Escalators)	6.1.6.3.14	1) The device shall: <ul style="list-style-type: none"> a) disconnect power if the step is displaced horizontally b) be of the manually reset type 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Handrail Speed Monitoring Device	6.1.6.4	1) A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15% or more. 2) The device shall also cause electric power to be removed from the driving-machine motor and brake when the speed deviation of 15% or more is continuous within a 2 s to 6 s range. 3) The device shall be of the manual-reset type.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Missing Step and Missing Dynamic Skirt Devices	6.1.6.5	1) A device shall be provided to detect a missing step and bring the escalator to a stop, before the gap resulting from the missing step emerges from the comb. <ul style="list-style-type: none"> a) The device shall cause power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type. 2) For escalators with dynamic skirts, a device shall be provided to detect a missing dynamic skirt panel and bring the escalator to a stop, before the gap resulting from the missing dynamic skirt panel emerges from the balustrade. <ul style="list-style-type: none"> a) The device shall cause power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type. 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Tandem Operation	6.1.6.6	1) Escalators must be interlocked to prevent bunching should the escalator carrying passengers away from intermediate landing stops.	<input type="checkbox"/> <input type="checkbox"/>

Step Demarcation Lights	6.1.6.7	<ol style="list-style-type: none">1) Green lights to be located within 400 mm (16 in.) from comb plate.2) Minimum of 2 fluorescent lamps3) Activated when unit is running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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DESCRIPTION	A17.1	Comments	Up Dn
Smoke Detectors	6.1.6.8	1) Smoke detectors shall be permitted that shall activate the alarm required by 6.1.6.3.1(b) and, after at least 15 s, shall cause the interruption of power to the driving-machine motor and brake.	N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Control & Operating Circuits	6.1.6.10	1) Should any single magnetically operated contactor, relay or switch fail to release or ground occur: a) the unit shall not start b) render any safety device ineffective	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Static Drive Control	6.1.6.10.3	1) two devices must remove power from the driving motor a) contactor must open upon each stop b) contactor must remove power to brake c) a separate contactor must also be used to open brake circuit d) subject to the electrical protective devices e) escalator shall not start unless both contactors are in de-energized position.	N/A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Electrically Powered Safety Devices	6.1.6.11	1) If the handrail-speed monitoring device required by 6.1.6.4, the missing step device, required by 6.1.6.5, or any electrical protective device required by 6.1.6.3, requires electrical power for its functioning a loss of electrical power to the device shall cause power to be removed from the escalator driving-machine motor and brake; 2) The occurrence of a single ground or the failure of any single magnetically operated switch, contactor or relay; or any single solid state device; or a software system failure, shall not render the missing step device or electrical protective device inoperative; and 3) When a single ground or failure as described in 6.1.6.11(b) occurs the escalator shall not be permitted to restart.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Completion or Maintenance of Circuit.	6.1.6.13	1) The completion or maintenance of an electric circuit shall not be used to stop the escalator when the emergency stop switch is opened or when any of the electrical protective devices operate. 2) These requirements do not apply to speed control switches (see 6.1.6.3.2, 6.1.6.3.8, and 6.1.6.4).	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Escalator Manual Reset	6.1.6.14	1) Where manual reset is required, interruption of power to the escalator shall not cause a safety device to lose the status of the event upon return of power. 2) The cause of the malfunction shall be indicated in some manner, so that an examination will be made prior to restarting the escalator. 3) The starting switch shall not be operable until the reset for each activated device is accomplished.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Code Data Plate	8.9	1) Located on mainline disconnect or controller. 2) Indicate code for inspections and tests. 3) State ID tag may be used to supply such information	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Machine Rooms (remote)	6.1.7.1.1	1) Remote Machine Rooms a) Minimum 15a duplex receptacle (GFCI) b) Minimum 100 lx (10 fc) illumination c) Light switch located within easy reach of door.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Truss Interior	6.1.7.1.2	1) A duplex receptacle rated at not less than 15 A, 120 V, accessibly located, shall be provided under the access plates (see 6.1.7.3) at the top and bottom landings and in any machine areas located in the incline.	<input type="checkbox"/> <input type="checkbox"/>

DESCRIPTION	A17.1	Comments	Up Dn
Access to Interior	6.1.7.3	1) Reasonable access to the interior of the escalator shall be provided for inspection and maintenance.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.7.3.1	a) Access plates requiring no more than 310 N (70 lbf) effort to open shall be provided at the top and bottom landing for inspection and maintenance.	<input type="checkbox"/> <input type="checkbox"/>
		b) The plates shall be made of a material that will afford a secure foothold.	<input type="checkbox"/> <input type="checkbox"/>
		c) The use of stone, terrazzo, or concrete as a fill material is prohibited in panels within the confines of the escalator truss.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.7.3.2	d) Access plates at the top and bottom landings shall be securely fastened.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.7.3.3	2) If access doors are provided in the side of the escalator enclosure, they shall be kept closed and locked.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.7.3.4	a) The key shall be removed only when in the locked position.	<input type="checkbox"/> <input type="checkbox"/>
b) The key shall be of Group 2 Security (see 8.1).		<input type="checkbox"/> <input type="checkbox"/>	
3) Where access is provided to a machinery enclosure, a fixed guard shall be provided to prevent accidental contact with the moving steps by a person servicing equipment from within the enclosure.		<input type="checkbox"/> <input type="checkbox"/>	
Controller & Wiring	NFPA 70 Art. 620	1) Disconnecting Means 620-51	<input type="checkbox"/> <input type="checkbox"/>
		a) 620-51(c)(3); located in space with controller	<input type="checkbox"/> <input type="checkbox"/>
		b) lockable in open position	<input type="checkbox"/> <input type="checkbox"/>
		c) fused or circuit breaker	<input type="checkbox"/> <input type="checkbox"/>
		2) Wiring 620-21(b)	<input type="checkbox"/> <input type="checkbox"/>
		a) 9.5 mm (3/8 in.) flex allowed in lengths no greater than 6'	<input type="checkbox"/> <input type="checkbox"/>
		b) 620-11(c); wiring must be flame retardant	<input type="checkbox"/> <input type="checkbox"/>
c) 620-84; grounding shall be as required by Art. 250.	<input type="checkbox"/> <input type="checkbox"/>		
d) Check controller for proper wiring and overcurrent protection.	<input type="checkbox"/> <input type="checkbox"/>		
e) Electrical conduit , fittings and covers must be as follows:	<input type="checkbox"/> <input type="checkbox"/>		
i) (348-12) Conduit Supports every 3000 mm (120 in.) & within 1000 (39 in.) of boxes.	<input type="checkbox"/> <input type="checkbox"/>		
ii) (370-18) Plug Open "knockouts"	<input type="checkbox"/> <input type="checkbox"/>		
iii) (370-25) Outlet box covers must be provided.	<input type="checkbox"/> <input type="checkbox"/>		
iv) (370-28c) J-box covers required.	<input type="checkbox"/> <input type="checkbox"/>		
Main Drive Shaft Brake	6.1.5.3.2	1) If the escalator driving-machine brake is separated from the main drive shaft by a chain used to connect the driving machine to the main drive shaft, a mechanically or magnetically applied brake capable of stopping a down-running escalator with brake rated load (see 6.1.3.9.3) shall be provided on the main drive shaft.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.5.3.3	a) If the brake is magnetically applied, a ceramic permanent magnet shall be used. 2) Escalator driving machine brakes shall be certified to the requirements of 8.3.1 and 8.3.6.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

DESCRIPTION	A17.1	Comments	Up Dn
Drive Machine Brake	6.1.5.3.1	<p>1) Each escalator driving machine shall be provided with an electrically released and mechanically or magnetically applied brake. If the brake is magnetically applied, a ceramic permanent magnet shall be used. There shall be no intentional time delay designed into the application of the brake.</p> <p>2) The brake shall be applied automatically if the electrical power supply is interrupted. The brake shall be capable of stopping the down-running escalator with any load up to the brake rated load [see 6.1.3.9.3(a)(2) or (b)(2)]. The brake shall hold the stopped escalator with any load up to the brake rated load [see 6.1.3.9.3(a)(1) or (b)(1)].</p> <p>3) Driving-machine brakes shall stop the down-running escalator steps at an average rate not greater than 0.91 m/s² (3 ft/s²) as measured over the total retardation time. No peak horizontal retardation value exceeding 0.91 m/s² (3 ft/s²) shall have a time duration greater than 0.125 s (see Nonmandatory Appendix I, Fig. I-11). (See also 6.1.6.3.6.)</p> <p>4) The escalator brake shall be provided with a data plate that is readily visible, located on the machine brake and when necessary, a duplicate data plate with the certification mark shall be placed adjacent to the machine brake.</p> <p>a) The data plate shall indicate:.....</p> <p>i) for fixed torque brakes, the range of brake torque that complies with 6.1.5.3.1 and 6.1.6.3.6; or</p> <p>ii) or variable torque brakes, the minimum brake torque for a loaded escalator and the minimum stopping distance for the unloaded escalator, which complies with 6.1.5.3.1 and 6.1.6.3.6;</p> <p>iii) the method of measuring the torque, designated "BREAKAWAY" or "DYNAMIC," based on the method used when measuring the torque;</p> <p>iv) the location where the torque is to be measured, e.g., "MOTOR SHAFT," "MACHINE INPUT SHAFT," "MAIN DRIVE SHAFT";</p> <p>v) the type of brake as fixed or variable torque;</p> <p>vi) the minimum distance from the skirt obstruction device to the combplate (see also 6.1.6.3.6).</p> <p>5) Where means other than a continuous shaft, mechanical coupling, or toothed gearing is used to connect the motor to a gear reducer, the escalator driving machine brake shall be located on the gear reducer or main drive shaft.</p>	<p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>.....</p> <p><input type="checkbox"/> <input type="checkbox"/></p>

Outdoor Escalators	6.1.8.1	1) Weatherproofing. a) Escalators shall be so constructed that exposure to the weather will not interfere with normal operation.	<input type="checkbox"/> <input type="checkbox"/>
	6.1.8.2	2) Precipitation..... a) A cover, directly over the horizontal projection of the escalator, shall be provided. b) The cover shall extend outward from the centerline of the handrail so that a line extended from the edge of the cover to the centerline of the handrail forms an angle of not less than 15 deg from the vertical. c) The sides may be open. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	6.1.8.3	d) When the escalator is indirectly subject to snow or freezing rain, heaters shall be operated to prevent accumulation and freezing on the steps, landing plates, and skirt deflector devices. e) Drains shall be provided in the lower pit.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		3) Slip Resistance..... a) Landing plates and combplates shall be designed to provide a secure foothold when wet. <input type="checkbox"/> <input type="checkbox"/>

8.6.10.5 Escalator or Moving Walk Startup.

<input type="checkbox"/>	Authorized personnel shall check the escalator or moving walk prior to permitting use. All authorized personnel who are assigned to start this equipment shall be given a copy and be provided with training to ensure that they understand and comply with the following procedures.
<input type="checkbox"/>	(a) Prior to starting the unit, observe the steps or pallets and both landing areas to ensure no persons are on the unit or about to board. Run the unit away from the landing.
<input type="checkbox"/>	(b) Verify correct operation of the starting switch.
<input type="checkbox"/>	(c) Verify correct operation of the stop buttons and alarm, if furnished.
<input type="checkbox"/>	(d) Visually examine the steps or treadway for damaged or missing components; combplates for broken or missing teeth; skirt panels and balustrades for damage.
<input type="checkbox"/>	(e) Verify that both handrails travel at substantially the same speed as the steps or the treadway, are free from damage or pinch points, and that entry guards are in place.
<input type="checkbox"/>	(f) Visually verify that all steps, pallets, or the treadway is properly positioned.
<input type="checkbox"/>	(g) Verify that ceiling intersection guards, anti-slide devices, deck barricades, and caution signs are securely in place.
<input type="checkbox"/>	(h) Verify that demarcation lighting is illuminated, if furnished.
<input type="checkbox"/>	(i) Check for uniform lighting on steps/tread not contrasting with surrounding areas.
<input type="checkbox"/>	(j) Verify that the safety zone is clear of obstacles and that the landing area and adjacent floor area are free from foreign matter and slipping or tripping hazards.
<input type="checkbox"/>	(k) Check for any unusual noise or vibration during operation. If any of these conditions is unsatisfactory, the unit shall be placed out of service. Barricade the landing areas and notify the responsible party of the problem. Equipment subject to 24-h operation shall be checked daily by authorized personnel.

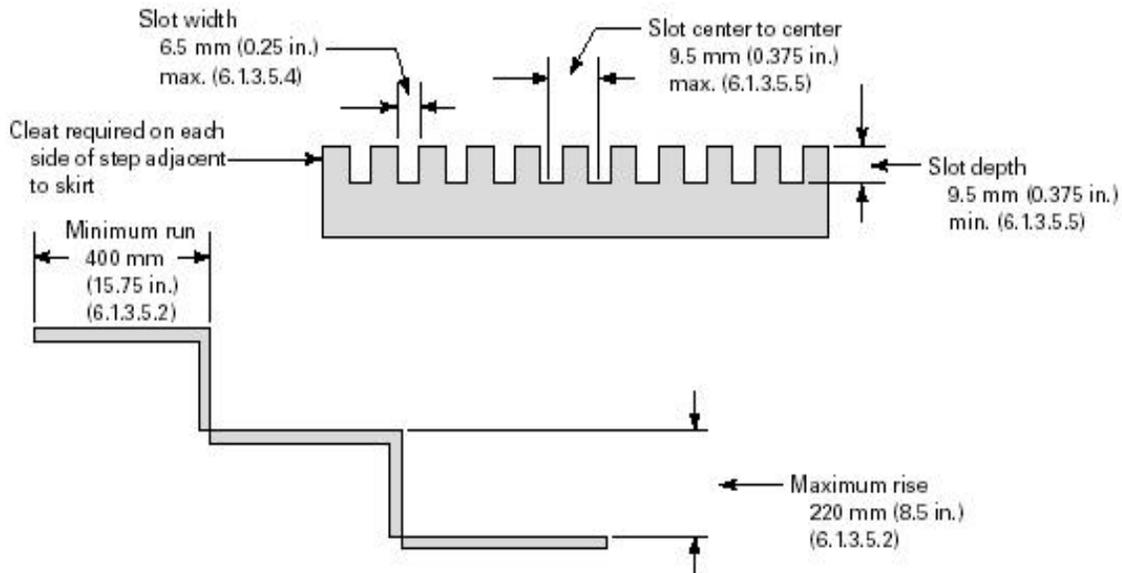


FIG. 17 ESCALATOR STEP TREAD

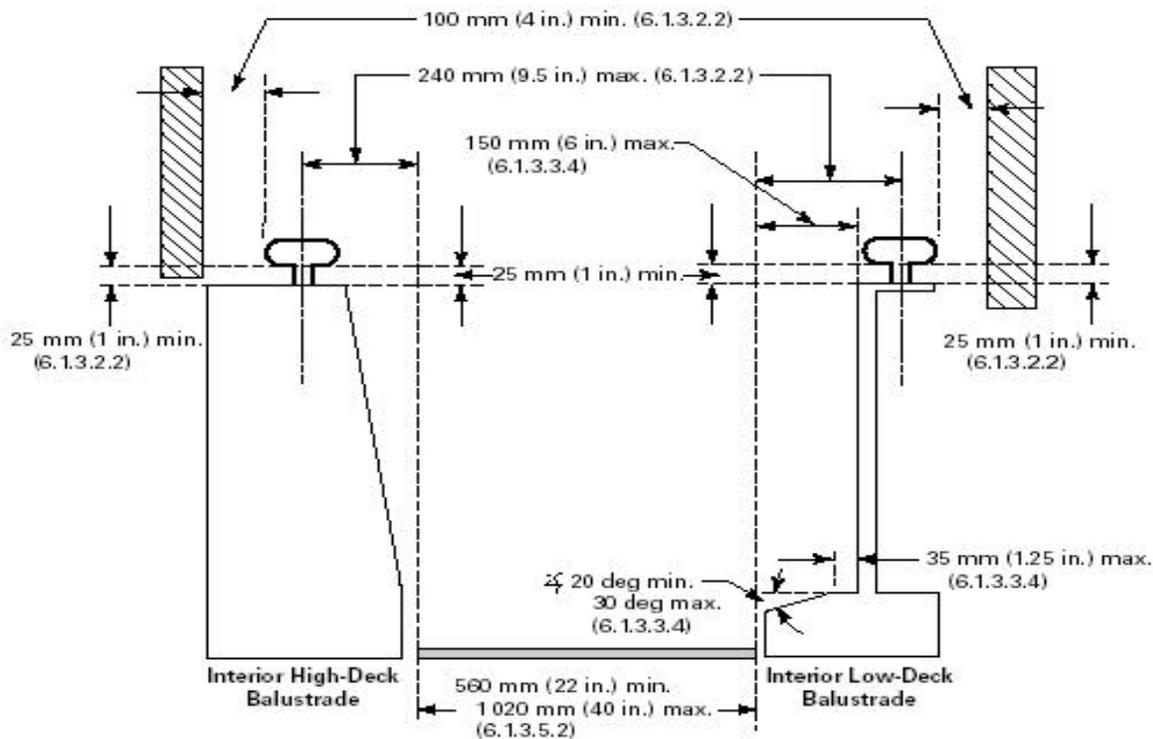


FIG. 11 RELATIONSHIP OF ESCALATOR PARTS