

Incident Summary (Reference # II-624127-2017)

SUPPORTING INFORMATION	Incident Date	December 01 2017
	Location	Burnaby
	Regulated industry sector	Elevating Devices - Escalator
	Impact	Qty injuries
		Injury description
		Injury rating
	Damage	Damage description
		Damage rating
INVESTIGATION CONCLUSIONS	Incident rating	Moderate
	Incident overview	"There is an escalator pile up. The steps piled into the upper landing"
	Site, system and components	Escalator steps are attached to their axle by means of C-shaped clamps which are mounted onto a rotatable bushing. Spring loaded clips attached onto the C-shaped clamps clip into the step axle bushings and securing the step to the axle.
	Failure scenario(s)	<p>The C-shaped clamp was not properly engaged and locked onto the rotatable bushing, this allowed the step to disengage from the bushing and caused axle misalignment. The misalignment caused the steps to come into contact with stationary components of the escalator and cause a step pile up.</p> <p>Worn out step roller and chain roller allowed enough step misalignment that caused the step to engage stationary component of the escalator.</p>
	Facts and evidence	<p>All records indicate that the steps were replaced in July of 2017. The C-shaped step clamp was reported to be not locked into the step axial rotatable bushing.</p> <p>See photo's attached.</p>
	Causes and contributing factors	<p>It is highly likely that the incident was a result of a securing pin not being fully engaged into the step axle bushing at the time of installation.</p> <p>A person riding the escalator step caused further misalignment of the step and which might have contributed to the incident.</p> <p>Worn step and chain rollers may have contributed to the incident.</p>

Photos or diagrams (if necessary)



Step risen above upper landing
comb plate



Axial and Bushings

Back side of damaged step.



Step clip that mounts onto bushing.



Step axial, step bushing, step chain and step track system.

