

## Incident Summary #II-968894-2020 (#16376) (FINAL)

SUPPORTING INFORMATION	Incident Date	January 12, 2020	
	Location	Vancouver	
	Regulated industry sector	Elevating devices - Escalator or moving walkway	
	Impact	Qty injuries	1
		Injury description	Bruised toe
		Injury rating	Minor
	Damage	Damage description	Shoe got caught in between the step and skirt panel halfway up the escalator
		Damage rating	None
	Incident rating	Insignificant	
Incident overview	A person riding half way up the escalator had their shoe caught between the moving step and the skirt panel.		
INVESTIGATION CONCLUSIONS	Site, system and components	An escalator is a moving staircase which carries people between floors of a building. It has metal steps that have stationary vertical skirt panels on either sides of the metal steps. The gap between the metal steps and skirt panels are regulated by the CSA B44-07 code to prevent objects from being caught in between the moving steps and stationary skirt panels. The skirt panels have a coating that reduces the friction of the panel which helps objects glide off the skirt panel instead of being caught in between.	
	Failure scenario(s)	The person riding up the escalator had their shoe riding up against the escalator skirt panel. At approximately half way up the escalator, the person's shoe was pinched between the moving escalator step and the stationary skirt panel.	
	Facts and evidence	<p>On-site investigation observations:</p> <ul style="list-style-type: none"> <li>- Onsite investigation conducted with escalator technician</li> <li>- Escalator was shut down upon arrival to the site</li> <li>- Shoe was removed from escalator prior to Safety Officer arrival</li> <li>- No physical damage was observed upon investigation to the escalator steps or skirt panel</li> <li>- Photo showing the damaged shoe caught between step and skirt panel, with visible markings on skirt panel (Picture 1)</li> <li>- Photo of skirt panel without shoe (picture 2) with similar markings on skirt panel from picture 1</li> <li>- Photo of step skirt gap (picture 3) at vicinity of where the shoe was caught between step and skirt panel (gap was larger than what is allowed by the B44-07 code)</li> <li>- Photo of step skirt gap (picture 4&amp;5) at various locations on the escalator (gaps were larger than what is allowed by the B44-07 code)</li> <li>- Unit was left shutdown until gaps were reduced to what is allowed by the B44-07 code</li> </ul>	

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	<ul style="list-style-type: none"><li>- Photo showing worn skirt panels which increase coefficient of friction beyond code requirements (pictures 1 &amp; 2)</li><li>- Safety Officer received an email from the maintenance contractor later that afternoon stating that the gaps were reduced to what is allowed by the code</li><li>- Safety Officer returned to site and confirmed that the gaps were code compliant and gave the maintenance contractor permission to release the unit back service.</li></ul>
Causes and contributing factors	It is highly likely that due to the persons footwear dragging against the escalator step skirt which was noted as not being compliant with the B44 code in respect to the permissible gap between the step and the skirt and the increased coefficient of friction due to the worn skirt panels, the person's footwear became pinched between the escalator and the skirt panel.

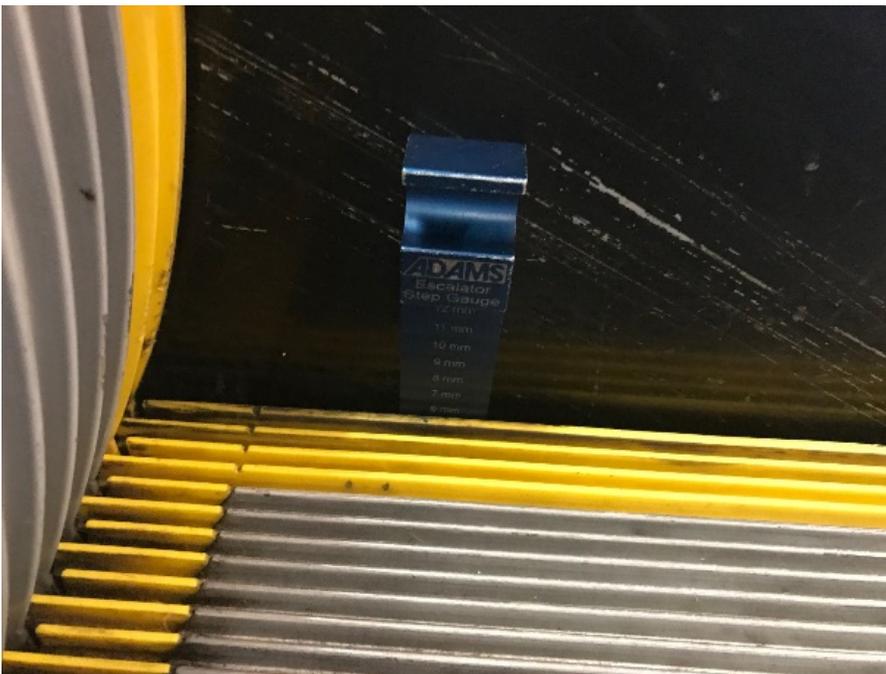
Photos or diagrams (if necessary)



Picture 1 - Shoe caught between step and step skirt panel



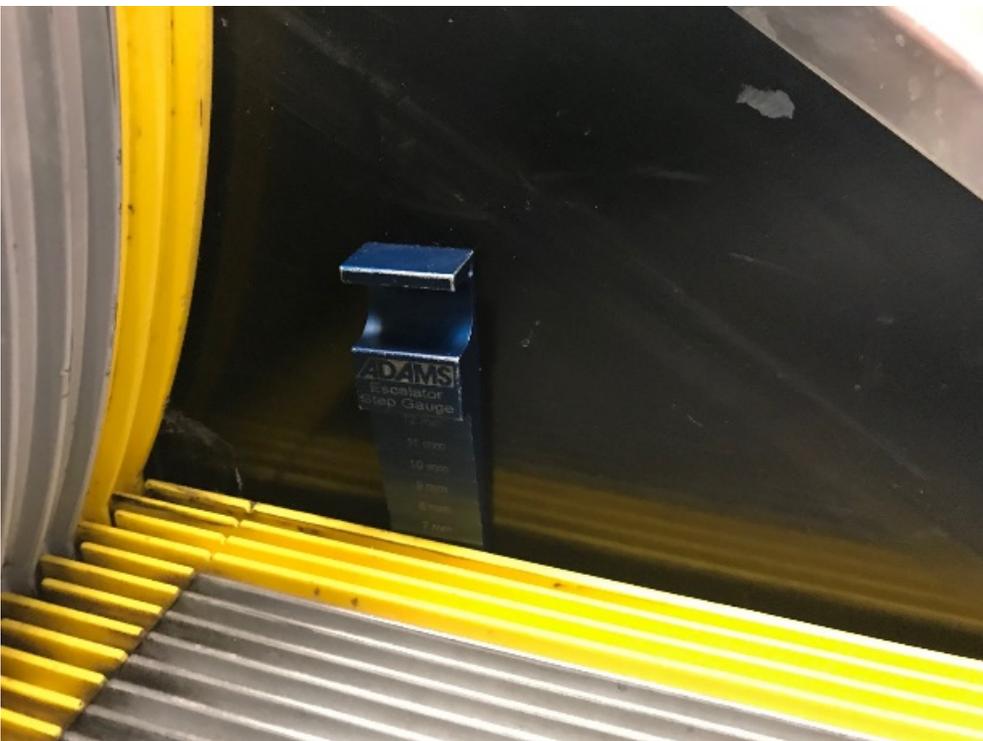
Picture 2 - Step skirt panel without shoe with markings on skirt panel



Picture 3 - Step skirt gap measurement at location where the shoe was caught



Picture 4 - Step skirt gap at different location on escalator



Picture 5 - Step skirt gap at different location on escalator