

Incident Summary #II-1149704-2021 (#20866) (FINAL)

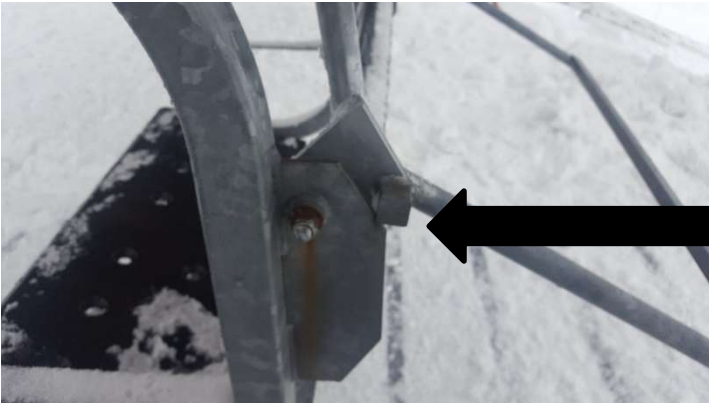
SUPPORTING INFORMATION	Incident Date	February 19, 2021	
	Location	North Vancouver	
	Regulated industry sector	Passenger ropeways - Above surface ropeway	
	Impact	Qty injuries	1
		Injury description	One person sustained a complete amputation of the tip of the left ring finger.
		Injury rating	Moderate
	Damage	Damage description	None
		Damage rating	None
Incident rating	Moderate		
Incident overview	As the patron approached the unloading point of the chairlift, they were observed to be having difficulty unloading the chairlift on time. The patron threw the restraining bar upwards in order to unload the chair, in the process pinching their finger between the restraining bar mounting bracket and the restraining bar stop.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>Chairlift carriers are equipped with restraining bars, designed to assist patrons to remain in a safe and comfortable seated position during the majority of the chairlift ride. Operational signs and lift attendants/operators inform and assist patrons to make the correct determination as to when it is safe for the restraining bar to be lifted as they approach the designated unloading area.</p> <p>Restraining bars have different designs and configurations, dependent on the manufacturer. This particular ropeway is equipped with restraining bar stops to limit the available travel of the restraining bar, enabling patrons to manually lower the restraining bar after loading the chair, and manually raise the restraining bar as they approach the unload area.</p>	
	Failure scenario(s)	<p>Patron safely loaded at chairlift at the loading station with no apparent issues. The patron approached the unload point of the chairlift quicker than they anticipated. Lift Operator was engaged in shoveling the snow surface of the unload ramp and did not see the late unload until the patron passed them on the ramp.</p> <p>The operator initiated a service stop. In the time it took the chair to come to a complete stop, the patron had lifted the restraining bar in a quick motion to facilitate getting off the chair. In doing so, the patron's finger was pinched between the contact point of the restraining bar mounting bracket, and the restraining bar stop.</p>	
	Facts and evidence	<ul style="list-style-type: none"> • Patron was familiar with the operation of chairlifts and had previously used this chair. • All informational signage was in place at both terminals, and the tower below the unload terminal. • Unload area was marked. • Chair and restraining bar were in good repair and functioning as designed. • Patron stated they were distracted as they approached the terminal and that they were at the unload point faster than anticipated. 	

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	<ul style="list-style-type: none">• Lift operator at the unload terminal was working on snow covered unload ramp and did not see the patron having difficulty unloading in a timely manner.• Lift operator stated they eventually saw the patron as they were heading towards the safety gate.• Prior to the tripping of the safety gate, the operator stated they engaged a normal stop.• The patron, approaching the safety gate, and in order to quickly unload the chair, threw the restraining bar into its 'up' position. At this time, their left ring finger was located at the pinch point of the restraining bar bracket and restraining bar stop, sustaining the injury.
Causes and contributing factors	<p>It is very likely that the patron, in a state of distraction, failed to unload at the appropriate time, and as they quickly lifted the restraining bar to unload the chair, inadvertently placed their left ring finger between the restraining bar and restraining bar stop, a found pinch point.</p> <p>It is likely that the operator was also distracted as they performed maintenance on the ramp, and did not see that the patron would require assistance to safely unload the chairlift at the marked unload point.</p>



Restraining bar in the 'down' position



Restraining bar in the 'up' position. Arrow points to the pinch point between square bar and restraining bar mounting bracket.