

Incident Summary #II-940396-2019 (#15908) (FINAL)

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| SUPPORTING INFORMATION | Incident Date | November 14, 2019 | |
| | Location | Interior | |
| | Regulated industry sector | Passenger ropeways - Above surface ropeway | |
| | Impact | Qty injuries | 0 |
| | | Injury description | N/A |
| | | Injury rating | None |
| | Damage | Damage description | Slight abrasion on haul rope |
| | | Damage rating | Insignificant |
| Incident rating | Insignificant | | |
| Incident overview | A grip of a detachable chairlift failed to correctly open. As the chair was entering the top station passengers were preparing to unload and their chair came to an abrupt stop prior to the unload point. One of the two passengers fell out of the chair. | | |
| INVESTIGATION CONCLUSIONS | Site, system and components | High speed chairlifts detach each chair from the main cable when they are at loading and unloading stations. This allows for easier, safe and efficient loading and unloading. The grip is the device on the carrier (chair) that attaches to the main cable. A detachable grip is designed to be opened (detached) and closed (attached) upon entry/exit of a station. It has multiple components in order for this action to occur. Grips on passenger ropeways are subject to dynamic stress. Nuts, bolts, snap rings and pins are typical fasteners used to secure grip components. Therefore, according to regulations and manufacture requirements, grips need to be completely stripped down and inspected on a pre-determined cycle. | |
| | Failure scenario(s) | A fastening element (spring pin) in the detachable grip was missed during the re-assembly of the grip. As the grip cycles through the load and unload stations a component in the grip that wasn't firmly secured became loose and interfered with the opening (detaching from the main cable) action of the grip. | |
| | Facts and evidence | <p>Discussions with operations & maintenance personnel:</p> <ul style="list-style-type: none"> • Earlier on the same day a different chair had a grip attach fault, a securing component was discovered missing • No grip inspection was performed after the initial discovery • Chair abruptly stopped while entering top station • Passenger fell approximately 5 feet out of the chair • Mechanical issue with the grip • An increased number of grips needed to be rebuilt due to a previous incident in September 2019 • Grip was last rebuilt just prior to ropeway opening November 8, 2019 • Grips were built, checked and documented for completeness by one mechanic • A securing element of the grip was missed during re-assembly | |

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| | <p>Review of ropeway manufacture grip rebuild procedures:</p> <ul style="list-style-type: none"> • Late model passenger ropeways grip rebuild safety instructions acknowledge a principle of dual control to verify completeness of re-assembly • Grip assembly instructions for this vintage of ropeway do not include a dual control to verify completeness of re-assembly |
| <p>Causes and contributing factors</p> | <p>It is very likely that the mechanic rebuilding the grip missed a securing element, resulting in a component of the grip blocking the detachment process of the grip from the main cable causing the chair to abruptly stop and a passenger to fall 5 feet.</p> <p>It is likely that contributing factors are that no grip inspection measures were taken after a securing element was discovered missing previously and quality control was completed by the same mechanic who built the grip.</p> |