

Valley Adventure Centre – King Swing Risk Assessment

Risk Assessment for: King Swing	Assessor(s): Ben Girdwood	Date: 06/01/2023
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Overview of activity/ location/ equipment/ conditions assessed:	The King Swing (3G Swing) is a high adrenaline activity that involves up to 3 participants being attached to a metal spreader bar and hoisted by other participants to a height of up to 9 metres using a rope and self-jamming 5:1 pulley system or hoisted by an electric winch. Participants are required to pull a cord to release the swing, which can produce up to 3 times the force of gravity and gain speeds of up to 45km per hour.
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Generic or specific assessment:		Specific		
Serial	Hazard(s) identified	Persons affected	Existing Controls	Additional Controls
1	Induction/ Safety Brief	All staff and public	All staff and public must attend a safety brief prior to using the King Swing.	A Safety Brief is attached
2	Slips, trips, falls and personal injury	All staff and public	The King Swing area is inspected prior to use for level ground and serviceable equipment. Stringent safety checks are made monthly. At the time of booking participants are informed about wearing suitable clothing and footwear for the session.	
3	Young persons and vulnerable adults	All staff and public	Ensure that young persons and vulnerable adults receive an induction talk and safety brief. It is vitally important that they not only listen to, but also fully understand, the safety issues and rules of the activity. Ensure that young persons and vulnerable adults do not enter sessions where there are older or more experienced participants. No person will be allowed to do the activity unless they can demonstrate that they	Young persons and vulnerable adults will tend to forget the safety and activity rules when they are excited. It is essential to repeat the rules at frequent intervals.

			<p>have fully understood the safety rules for the activity.</p> <p>Under 16's require a 'Consent Form' signed by a parent or guardian or have a parent/guardian in attendance. The minimum age for this activity is 7 years old.</p> <p>Occasionally 6 year olds may be permitted to use the king swing (i.e. same school year 7th birthday parties) but they must be at least 120cm in height.</p> <p>All participants must read an Activity Disclaimer form, and the lead person must sign for their group.</p>	
4	Injury due to problems with health and/ or fitness	All staff and public	<p>This is a physically and mentally challenging activity.</p> <p>All users should be fit enough to undertake the activity and operate within their personal limits.</p> <p>Participants are advised to seek professional assistance if in doubt about the fitness level required for the activity.</p> <p>Players with current injuries or undergoing medical treatment are discouraged from participating.</p>	
5	First aid and medical requirements	All staff and public	<p>Supervising staff must have a valid first aid award and ERCA award or have received specific training as an Appointed Person.</p> <p>First aid kits are available in the Tower and the Cabin.</p>	<p>It may be impractical for players to carry personal medications during activity. All personal medications should be immediately available or carried by a supervisor if requested.</p>

			<p>An accident reporting record is kept by the Centre Manager.</p> <p>Players with additional medical requirements such as asthma inhalers, diabetes etc should make themselves known to supervising staff so that appropriate measures may be taken to ensure the availability of personal medications if required.</p>	<p>The activity may be stopped if personal medications are required.</p>
6	Alcohol and drug misuse	All staff and public	<p>All staff and public are particularly at risk when exposed to alcohol and/or drug misuse.</p> <p>Members of the public who appear to be under the influence of alcohol and/or drugs will be asked to leave the session, possibly the site.</p>	<p>This is included in the safety brief. ALCOHOL, DRUG MISUSE AND OUTDOOR ACTIVITIES DO NOT MIX.</p>
7	Fire and Emergency	All staff and public	<p>The site is 'No Smoking'.</p> <p>Naked flames are not allowed on-site unless as part of the 'Bushcraft' sessions at a designated fire pit.</p> <p>Staff are inducted and trained to respond in the event of a fire.</p> <p>Contact the emergency services by calling 999 or 112 from the cabin or by mobile phone.</p> <p>There is a mobile reception for most networks on-site.</p>	<p>In the event of a Fire or Emergency all users will be escorted by an instructor to the Emergency Assembly Area which is located next to the water pumping station at the main gate entrance to Creepy Valley.</p>
8	Supervision, assistance and lowering of participants from the	All staff and public	<p>A session can be run with 1 or 2 instructors present.</p> <p>Instructors have been trained and</p>	

	King Swing		<p>assessed to lower participants in the event of injury, evacuation in emergency or if the participant won't or is unable to pull the release.</p> <p>In the manual 'pulling the rope' method, participants are lowered from the King Swing by reversing the pulley system and slowly lowering the swing back to the ground under control using a Petzl ID device.</p> <p>Instructors and Assistant Instructors can provide vocal support and instructions to participants as well as assist, help or physically intervene where necessary.</p> <p>Using the 'electric winch' method, the instructors can either: release the participants by shaking the rope they hold attached to the quick release system, or lower the participants using the electric winch in reverse mode.</p> <p><i>*See King Swing rescue procedures in the Operating Procedures.</i></p>	
9	Injury when incorrectly attached to the King Swing	All staff and public	<p>There is a danger that the participant can slide from the Petzl Podium seat, hit their face against the bar, get fingers caught or fall from the swing due to incorrect attachment by the instructor.</p> <p>Participants are attached and adjusted on the swing to prevent the seat being too low and briefed on how to pull the cord and where to hold onto. Once attached to the swing, the instructor will check the function</p>	<p>The additional safety measures apply:</p> <p>Instructors are trained and assessed to reverse the pulley system through a Petzl ID device, which allows the participant to be lowered under control.</p> <p>Instructors are trained and assessed to climb the 'pulley pole'</p>

			<p>and operation of the King Swing and pulley systems prior to use.</p> <p>Participants are brought forward to the swing and walk up the steps on a platform that has been wheeled into position under the swing.</p> <p>Participants are then attached to the spreader bar in two ways; a large steel pin that goes through a hole in the spreader bar and through the triple locking karabiner on their harness, the large pin is then secured in place via a smaller horizontal pin, and via a DMM Belay Master karabiner attached to the spreader bar using a sling tied in a larks foot knot and attached directly into the front harness attachment points.</p> <p>A Petzl Podium seat is then attached under the participant for support.</p> <p>The participant is then hoisted by fellow participants until asked to stop or they are as high as they can go.</p> <p>The 'hoisters' are asked to place the rope down as it is now held by a self-jamming pulley.</p> <p>A second method of hoisting clients is by means of an electric winch.</p> <p>The Instructor is responsible for hoisting participants until asked to stop or they are as high as they can go using a remote</p>	<p>and untangle the system, should the wind or an unexpected release cause the pulley guy line to wrap around the pole. A climbing rope should be pulled through the top anchor point and the climber should be belayed using normal bottom roping methods to ensure instructor safety.</p>
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			<p>control device connected to the electric winch.</p> <p>The participant is then asked to pull the release cord and allowed to swing until the Instructor is able to pull you to a stop.</p>	
10	Staff and Public entering the activity area during a session	All staff and public	<p>Ensure any gates are closed.</p> <p>Accompanying adults or children entering the activity area to take photos or offer encouragement are asked to wear a helmet at all times and are not allowed into the King Swing area without one.</p>	
11	Injury due to ground and/ or weather conditions	All staff and public	<p>All staff and public are to wear suitable and supportive footwear for use during outdoor activities.</p> <p>The King Swing is inspected prior to the activity. The activity may go ahead in most conditions. Rain and high winds above Force 7 in a south westerly direction can stop the activity.</p> <p>Lightning storms or winds above F8 any direction will stop ALL activities.</p> <p>Participants are made aware of the implications about handling the 'hoisting rope' when conditions are icy, windy or wet as they may lose their grip on the rope causing rope burns.</p>	<p>A dynamic risk assessment is made before and during sessions. Participants are briefed on weather conditions as required. The wind speed and direction is taken from the Airport Tower Jersey Met website but the local prevailing wind and wind speed can vary due to being in a valley. Activity will be stopped if necessary. Participants are allowed to reschedule activity if the forecast is for very inclement weather or high winds.</p>
12	Injury from inadequate personal clothing and/ or footwear	All staff and public	<p>Participants are advised to remove rings and jewellery.</p> <p>Participants are advised to wear sturdy, close-toed footwear. Hair tied back and no</p>	

			objects in pockets.	
13	Injury from metal fatigue and activity equipment	All staff and public	<p>The King Swing and associated equipment is inspected and maintained.</p> <p>Individual items are to be identifiable and in a serviceable condition and inspected for damage.</p> <p>The King Swing cables are tested for 'metal fatigue in marine environments' by a licenced third party inspecting body.</p>	
14	Issue of personal PPE equipment	All staff and public	<p>Ensure all PPE equipment is clean, fits properly and conforms to safety regulations.</p> <p>NEVER issue any worn or defective equipment.</p> <p>Stress the importance of 'looking after equipment'.</p> <p>Size and adjust harnesses and helmets to correct fit.</p> <p>Readjust as necessary during activity especially after weighting the harness.</p> <p>All King Swing elements are to be inspected prior to use and before and after the sessions.</p> <p>Harnesses are checked and adjusted as necessary prior to using the King Swing.</p>	
15	Injury to head	All staff and public	The helmet will protect participants in the event of a slip or fall and will also protect from 'in activity bumps' on cables.	

16	Injury to hands	All staff and public	<p>It is possible to suffer from rope burns if the pulley system fails under load.</p> <p>All ‘hoisters’ are told to stand on the rear of the rope so that it is easily let go if the pulley should fail. The ‘swinger’ will simply swing until a stop.</p> <p>Once the ‘swinger’ is hoisted into position the Instructor tells the ‘hoisters’ to place the rope on the ground and stand back before allowing the ‘swinger’ to pull the release cord.</p> <p>When using the electric winch hoisting system, participants are instructed to stand in the designated ‘safe area’ until it is their turn on the swing.</p> <p>The ‘swinger’ is instructed to keep hands held around the smaller rounded bar that forms part of the spreader bar and not to interfere with any fixings or connectors.</p>	
17	Injury through damaged or faulty equipment	All staff and public	<p>Helmets and harnesses are inspected and fitted by instructors.</p> <p>Damaged or faulty equipment is withdrawn for further inspection by the Centre manager.</p>	The Centre manager inspects and repairs or removes items from service.
18	Effect on equipment due to poor storage conditions	All staff and public	PPE equipment is to be stored in a cool dry environment.	
19	Misuse of equipment	All staff and public	PPE equipment is to be stored correctly and not used other than on authorised training or sessions.	

Date of review:	Serial amended:	Reviewed by:	Date of review:	Serial amended:	Reviewed by:
Aug 12	N/A	Wilkes	Jan 2021	Review	Girdwood
Apr 13	3, 8, 9	Wilkes	Jan 2022	Review	Girdwood
Oct 13	Assessor(s)1,7,9,11	Corbett	Jan 2023	Review	Girdwood
Jun 14	Overview,3, 8, 9, 12, 16	Corbett			
Aug 15	3, 5, 12	Corbett			
May 2016	General Review	Robinson			
Sep 17	16, 17	Wade			
Feb 18	General Review	Wade			
April 18	3,17	Colin			
Feb 19	General Review	Colin			
Jan 2020	General Review	Colin			