



Normal Operating Procedure (inc. Risk Assessment) Single Person Giant Swing

Risk Profile

The following risks have been identified through PGL's risk assessment process:

- a. Extreme weather.
- b. Injury from participation/physical exertion.
- c. Fatigue/exhaustion/dehydration.
- d. Injury due to incorrect set-up and operation/ belaying.
- e. Collision/entanglement with elements/structures/equipment/people.
- f. Entrapment of hair, fingers, loose clothing, etc. in element or operating structure.
- g. Splinter injury from pole.
- h. Injury from cables & cable clamps.
- i. Tear/ de-gloving injuries from rings and other jewellery.
- j. Danger of ground fall from.
 - i. Intentional misuse of equipment and systems.
 - ii. Incorrect attachment.
 - iii. Poor fitting of harnesses.
 - iv. Equipment failure.
- k. Rope burn injury.
- l. Slips/trips/low to ground falls.
- m. Injury due to object/person in path of swinging guests.
- n. Risk of descent and sudden stop due to failure of pro-traxion pulley.
- o. Injury by the pro-traxion pulley.
- p. Instructor/guest injury due to slowing the swing.
- q. Instructors damaging fingers in 3-ring circus.

Implementation of the following operating procedures reduces the residual risk to a level as low as reasonably practicable given the intended purpose of the activity.

Control Measures

Deployment Requirements

Instructor Qualifications: Assessed by an approved PGL Assessor.

Instructor – Participant ratio: 1:1

Total group size: 15

Active participation: All guests should be active hoisting or on the swing.



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Equipment Requirements

Per Activity Base:

- 1 x Protective tube for pro-traxion with two attachment strings
- 1 x Static rope – appropriate length and diameter for pro-traxion
- 1 x Static extender rope – appropriate length
- 1 x Dynamic rope cut to length (for pulling down hoist after each release- dynamic down haul rope)
- 1 x Sit stop
- 8 x 3D Steel karabiners
- 2 x 3D Alloy karabiners
- 1 x PETZL Pro-traxion
- 1 x PETZL Swivel
- 1 x 3 ring circus & quick release system

1. Guest & Instructor equipment requirements

Per Instructor:

- 1 x Helmet

Per Guest

- 1 x Helmet (to be worn when in the swing area)
- 1 x Sit harness – appropriate to swing type
- 1 x Chest harness
- 1 x Combi sling
- 1 x HMS karabiner

2. Specific Clothing Requirements

- Trousers or long shorts
- Flat soled shoes or boots unable to slip off
- Long hair tied back
- Jewellery removed where possible or made safe
- Where a chest harness is worn, a top or t-shirt must be worn that covers the individual's shoulders
- Loose items removed from pockets
- Any items constituting a risk of entanglement removed

3. Session Preparation

- a. Instructor to carry out a routine visually inspection of the element and activity area, checking the integrity of the whole element (to include poles, ladders, high lap splices, anchor points and guys, etc.), as per daily rope inspection checks ACOP.
- b. If built in a wooded area, check for fallen branches or unsafe trees.
- c. Off ground activities must not be operated in wind conditions above Force 5, (17-21 knots/19-24 mph/29-38 kmh) or during any storm that breaches the 30/30 rule in respect of lightening.



Normal Operating Procedure (inc. Risk Assessment) Single Person Giant Swing

- d. If the instructor has any concerns about the integrity and safe use of the element and activity area, then they should raise this with the appropriate senior staff member, prior to any activity taking place.
- e. All set-ups must be rigged in accordance with PGL/MIC Technical Advisor approved methods/policy.
- f. Instructor to visually and physically check the integrity and setup of all PPE to be used, including twists in any straps and amount of PPE for the group.
- g. Instructors should prepare themselves for the session ahead by ensuring they are aware of relevant group information, and have a broad session plan which can be finalised when meeting the group.
- h. An extension of static rope must be positioned between the hoisting system and the 3 ring circus to prevent the swing being hoisted above 80 degrees (10 degrees below horizontal).
- i. An approved tube must be clipped in place with two attachment points so that it is impossible for any guest to get their hands and fingers into the entrapment area on the pro-traxion.
- j. The trolley/ladder for mounting and dismounting, must be orientated with the bar behind guests so that it is impossible to hoist with the trolley/ladder still in place.
- k. The trolley or steps for mounting and dismounting, must have a defined safe place where it is always positioned other than when it is used for mounting and dismounting.

4. Session Instruction

- a. Instructor must deliver and intro and safety briefing as per the ACOP.
- b. Helmets must always be worn by instructors and guests whilst on the element or in close proximity.
- c. All guests not actively involved should be in an area easily supervised by the instructor.
- d. All participants must be attached to the sit strop using the approved method.
- e. Instructors to hold weight of sit strop on arm when threading 3-ring circus.
- f. Instructor must ensure guest is able to operate quick release.
- g. Guests must be instructed and reminded to keep both hands holding the strop above their head to protect from inversion and collisions with release system. Whilst releasing they may use one arm to do this and then quickly replace the hand whilst swinging.
- h. The dynamic down haul rope must be held clear of the participant before and during hauling; during and after release and swinging. It should be held loosely in two hands at arm's length.
- i. The instructor must continually monitor the guest holding the dynamic down pull rope throughout.
- j. Final departure checks prior to being hauled (see off ground FDC ACOP) must additionally include foot clearance, pro-traxion, dynamic down pull rope and obstacles in path of swing.
- k. No obstructions must be left in the path of the swing.
- l. Hauling must not commence until the instructor has completed a function check of the pro-traxion and is sure that it is set to on.
- m. Throughout hauling the instructor must equally monitor:
 - i. The guest on the swing.
 - ii. The guests hauling.
 - iii. The dynamic pull down rope.
 - iv. The pulleys.



Normal Operating Procedure (inc. Risk Assessment) Single Person Giant Swing

- n. If an obstruction is noticed in the path of the swing once hauling has begun, hauling should cease immediately and a controlled lower should be carried out immediately. Under no circumstances should any person step into the swing path to move the obstruction.
- o. If at any time the guests holding the dynamic down pull rope lets go of it, the Instructor should stop hauling, tie off the hoisting rope and return the dynamic down pull to a safe position.
- p. Hauling guests must be supervised and encouraged to work as a team.
- q. The hauling rope must not be held tightly by the instructor prior to guest releasing the swing.
- r. Instructors should not re-enter swing area and must not slow down/stop the swing until the pendulums have reduced to a size that the instructor can stop the swing without risk of injury to themselves.
- s. Nobody is to re-enter swing area until ok given by instructor.
- t. The pro-traxion must only be released and the hauling rope pulled down and regathered at the haul pole.

5. Rescue

- a. Instructor ties an Italian hitch, tied off with a slippery hitch and 2 half hitches, in the haul rope through the karabiner in the end pole eye bolt.
- b. On command from instructor the hauling team pull the haul rope to release tension on the pro-traxion, whilst the instructor releases the cam.
- c. Instructor moves hauling team to a safe area.
- d. Instructor releases the half hitches and lowers the guests using the Italian hitch.

Light Lower –

- e. In the event a guest is too light to lower on an Italian hitch, the hitch can be removed and the instructor lowers the guest using the end pole karabiner.
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