



## Normal Operating Procedure (inc. Risk Assessment) 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 traction 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.

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### Control Measures

#### Deployment Requirements

Instructor Qualifications: Centre based training by Approved Ropes Trainer and assessment by PGL Approved Assessor

Instructor – Participant ratio: 1:2

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 13mm Captive eye static rope of appropriate length (haul set up)
- 1 x Static Rope – appropriate length
- 1 x Static extension rope – appropriate length
- 1 x Dynamic Rope cut to length (for pulling down hoist after each release- dynamic pull down rope)
- 1 x Short section of static rope cut to length (extension of the Pulley system to three ring circus)
- 11 x Triplock Karabiners (3D krabs)
- 4 x 'D' maillions or karabiners for bar attachment
- 1 x Delta maillon (swing specific)
- 1 x PETZL Pro-Traxion
- 1 x PETZL Swivel
- 2 x large radius Double Sheave Pulley's
- 1 x yoke and quick release.

### 1. Guest & Instructor equipment requirements

#### Per Instructor:

- 1 x Helmet

#### Per Guest

- 1 x Helmet
- 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 individuals shoulders

Loose items removed from pockets

Any items constituting a risk of entanglement removed

### 3. Session Preparation

- a. Instructor to carry out a routine visual 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, (17-21knots / 19-24mph / 29-38kmh) or during any storm that breaches the 30/30 rule in respect of lightening.



## Normal Operating Procedure (inc. Risk Assessment) 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. On all days when the activity takes place, a record of the first routine inspection of the day should be logged for future reference.
- f. All set-ups must be rigged in accordance with PGL/MIC Technical Advisor approved methods/policy.
- g. Instructor to visually & physically check the integrity and setup of all PPE to be used, including twists in any straps and amount of PPE for the group.
- h. 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.
- i. An extension of static rope must be positioned between the 4:1 hoisting system and the three ring circus to prevent the swing being hoisted above 80 degrees (10 degrees below horizontal).
- j. 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.
- k. The trolley for mounting and dismounting, must be orientated with the bar behind guests so that it is impossible to hoist with the trolley still in place
- l. The trolley or steps for mounting and dismounting, must have a defined safe place where it is positioned at all times other than when it is used for mounting & dismounting.

### 4. Session Instruction

- a) Instructor must deliver an intro and safety brief as per the ACOP
- b) Helmets must be worn at all times 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) Guests should be of a similar weight when using the swing to avoid twisting the swing rig.
- e) All Participants must be attached to the bar using the approved method.
- f) Instructors to hold weight of bar on arm when threading 3 ring circus.
- g) Instructor must ensure guests are able to operate quick release.
- h) Guests must be instructed and reminded to keep both arms crossed over the swing bar to protect their faces from collision. Whilst releasing they may use one arm to do this and then quickly replace it over the bar whilst swinging.
- i) The dynamic down pull rope must be held clear of the swing bar and guests before and during hauling; during and after release and swinging. It should be held loosely in two hands at arm's length by a guest.
- j) The instructor must continually monitor the guest holding the dynamic down pull rope throughout.
- k) 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 inc the mounting/dismounting trolley/platform
- l) No obstructions must be left in the path of the swing.
- m) 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.
- n) Throughout hauling the instructor must equally monitor:
  - i. the guests on the bar
  - ii. the guests hauling



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(inc. Risk Assessment)  
Giant Swing**

- iii. the dynamic pull down rope
- iv. The pulleys and 4:1 hoisting system.
- o) 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.
- p) 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.
- q) If at any time the hoisting system and pulleys creates a 'dead loop' then the following two options should be tried:
  - i. If the loop is no more than a few centimetres then the instructor should tie off the hauling rope and try freeing the loop by pulling down on the dynamic down haul rope.
  - ii. Guests must be asked to release, the system reset and the guests given another hoist to replace the missed go.
- r) Hauling guests must be supervised and encouraged to work as a team.
- s) The hauling rope must be held tightly by the Instructor prior to guest releasing the swing.
- t) Instructors should not re-enter swing area and must not try to 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
- u) Nobody is to re-enter swing area until ok given by instructor.
- v) The pro-traxion must only be released and the hauling rope be pulled down and re-gathered when the swing has come to a stop.

**5. Rescue**

- a) Instructor Ties leave the rope through the end pole karabiner and ties it off with 2 half hitches
- 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. the hauling team then ease the tension back into the Pro-traxion and the weight is held on the tied off end pole.
- c) Instructor releases the half hitches and lowers the guests, with the assistance of the hauling team if necessary.

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**FOR CENTER USE ONLY:**

The risk assessment procedure has been completed by:

DATE	PRINT NAME	SIGNATURE