



# User Instructions Manual

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skyTECH Mag Rocket Trolley

SKY-RT-MB-01, SKY-RT-MB-02

Skyline Ziplines Ltd.

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## *Revision History*

Revision	Sections Affected	Changes	Date
0.0	-	Original Publication	14 May 2019





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## *Warnings and Important Notices*

You will find on this page, and throughout this user instructions manual, many warnings and important notices that must be considered seriously when operating this system. It is imperative to understand the meaning of the warnings and potential hazards.



It is the responsibility of the operator to document and maintain a product use, inspection and maintenance logbook. Skyline Ziplines supplies inspection criteria and guidelines, forms and log sheets specific to all manufactured systems and equipment. It is the responsibility of the operator to follow all guidelines, intervals, and criteria set forth by these documents.



**WARNING:** This product is designed for zip line operations only. The operator(s) must read and understand the instructions in this manual before using this product. Manufacturer's instructions must be followed for the proper use and maintenance of the system and provided equipment. Alterations or misuse of this equipment, or failure to follow instructions, may result in serious injury or death.



This document does not replace a complete training necessary for the use of this product. Knowledge by the user of all appropriate techniques and risks is required.



This manual contains information and instructions specific to skyTECH Rocket Trolley and associated equipment manufactured by Skyline Ziplines Ltd. Make sure this User Instructions Manual is the latest version available. Contact Skyline Ziplines to obtain the latest document revisions, important Updates and other notices.



Products and systems manufactured by Skyline Ziplines are intended for use by professionals trained and experienced in the use, inspection, and maintenance of these products, or for use by persons under the direct visual surveillance of competent and responsible persons.



Before using this equipment, record the product identification information from the ID label in the inspection and maintenance log at the end of this document. Make sure this User Instructions Manual is readily available with the product. Contact Skyline Ziplines Ltd to obtain additional copies of this manual.

## 1.0 Description

### 1.1 Applications

Skyline trolleys are to be used as personal equipment for zipline amusement rides only.

### 1.2 Standards

Refer to local, provincial/state and federal laws and regulations pertaining to the installation and use of this type of equipment.

### 1.3 Description of Rocket Trolley – Mag Brake Seated

#### 1.3.1 Rocket Trolley – Mag Brake Seated with Crossbar Set-Up

Product Code: SKY-RT-MB-01

Specifications:

- Mag Brake Wheel Set-Up (8 Magnets, Plates, Hardware) [Sky-MB-W-02]
- Mag Brake Wheel [SKY-MB-W-01]
- 6061 Anodized Aluminum Construction
- Sealed SKF Bearings
- 2-Piece Crossbar
- Compatible with 3/4" and 7/8" Cable Diameters
- Stainless Steel Hardware
- Compatible With skyTECH Launcher, Release Mechanism, and Catch Block
- Designed for Use with skyTECH Twin Harness
- Proprietary Magnetic Eddy Current Trim Brake

### 1.4 Description of Rocket Trolley – Mag Brake Prone

#### 1.4.1 Rocket Trolley – Mag Brake Prone

Product Code: SKY-RT-MB-02

Specifications:

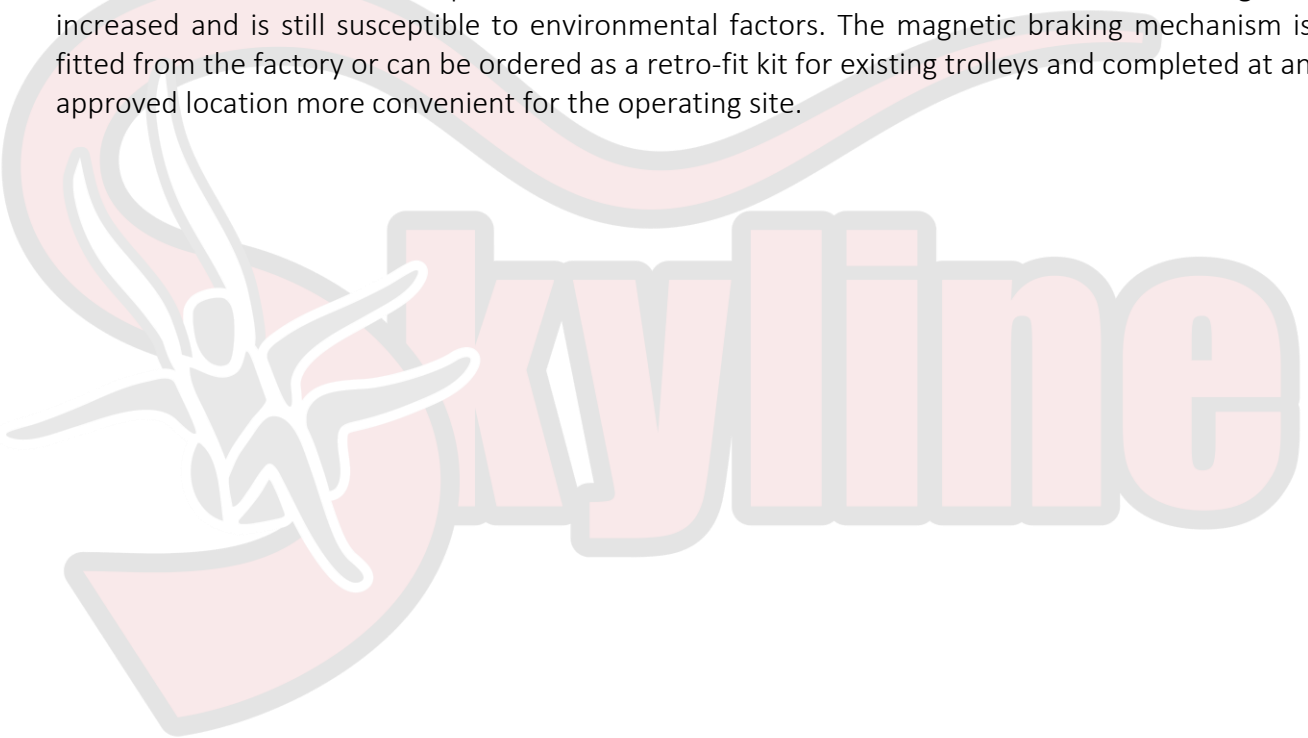
- Mag Brake Wheel Set-Up (8 Magnets, Plates, Hardware) [Sky-MB-W-02]
- Mag Brake Wheel [SKY-MB-W-01]
- 6061 Anodized Aluminum Construction
- Sealed SKF Bearings
- Compatible With 3/4" and 7/8" Cable Diameters



- Compatible with skyTECH Launcher, Release Mechanism, and Catch Block
- Designed for Use with skyTECH Prone (Superman) Harness
- Proprietary Magnetic Eddy Current Trim Brake

### 1.5 Magnetic Trim Brake Technology

Magnetic Braking Rocket Trolleys are designed to provide frictionless resistance to achieve slower speeds for operations experiencing overspeed events, consistent high wind events, and larger weight riders. The trim brake utilizes Eddy Current Magnetic technology through proprietary modifications to the Rocket Trolley and proprietary wheels. In testing, Skyline Ziplines has seen a consistent 30% reduction in speed for riders of 235 lbs. The trim ratio decreases as weight is increased and is still susceptible to environmental factors. The magnetic braking mechanism is fitted from the factory or can be ordered as a retro-fit kit for existing trolleys and completed at an approved location more convenient for the operating site.



## 2.0 Limitations

Consider the following application limitations before using this equipment:

### 2.1 Capacity and Working Load Limit

Not to be used in operations exceeding 275 lbs riders.

Not to be used in operations exceeding 90 mph line speeds.

Not to be used in operations exceeding 60 mph brake impact speeds.

### 2.2 Medical Restrictions

Pregnant women, persons with heart condition or persons with previous neck or back injuries may not use this equipment. Users should have full use of their arms, legs, and hands.

### 2.3 Dress for Safety

Users of this equipment must be dressed appropriately with close-fitting clothes and must not wear jewelry, scarves or other accessories that could get caught in the zip line equipment. Users must be wearing appropriate closed-toe footwear to mitigate potential hazards and injuries.

### 2.4 Environmental Hazards

Use of this equipment in areas with environmental hazards may require additional precautions to prevent injury to the user or damage to the equipment. Hazards may include, but are not limited to: heat, chemicals, corrosive environments, electrical fields and wires, gases and sharp edges.

### 2.5 Sharp Edges

Avoid using where the zip line equipment or other system components will be in contact with, or abrade against unprotected sharp edges.

### 2.6 Rescue

Should a rescue be required, the user/supervisor/employer must have a rescue plan, the means at hand to implement it, and the necessary training to safely perform the defined rescue plan. Further reading material can be found in the Skyline Ziplines Rescue Procedures Manual. Contact Skyline Ziplines Ltd. for more the manual if it has not been provided.

### 2.7 Training

Skyline Trolleys must only be installed and used by persons trained in their correct application and use. (See Section 5)



## 3.0 System Requirements

### 3.1 Compatibility of Components

Skyline equipment is designed for use with the Skyline-approved components and subsystems only. Substitution or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may affect the safety and reliability of the complete system.

### 3.2 Compatibility of Connectors

Connectors are compatible with connecting elements when they have been designed to work together in such a way that their size and shape do not cause their gate mechanism to inadvertently open regardless of how they become oriented.

Connectors used to attach to the Skyline **MAG** Rocket Trolley should meet these specifications:

- Minimum break strength of 22.2 kN.
- Shape must be designed to attach to middle anchor point on trolley and gate fully close.
- Must have a self-locking gate mechanism.
- Must be certified by CE, ANSI, CSA, or NFPA.
- Recommended Connector: Petzl William Triact.

### 3.3 Making Connections

Use only connectors that are suitable to each application. Ensure all connectors are compatible in size, shape, and strength. Do not use equipment that is not compatible. Ensure all connectors are fully closed and locked.

## 4.0 Nomenclature and Assembly

### 4.1 Description of Part



#### **4.2 Procedure for Assembling MAG Rocket Seated (SKY-RT-MB-01, SKY-RT-S03, SKY-RT-S04, SKY-MB-S01, SKY-SL)**

Tools Required: ½" Socket (2), Socket Wrench (2)

- 4.2.1 Sit trolley, on its end plate, down on table with Serial Number on right side.
- 4.2.2 Insert 1 shackle (SKY-RT-S03) into 1 lanyard (SKY-RT-S04) with label of lanyard facing the table and located near the crossbar.
- 4.2.3 Connect shackle to trolley tab with nut on the inside of the tab.
- 4.2.4 Repeat steps 4.2.2 and 4.2.3 for remaining lanyards (4 total).
- 4.2.5 Orient crossbar (SKY-MB-S01) with insert dowel on the right.
- 4.2.6 Insert 1 shackle into lanyard and connect to corresponding hole on crossbar with nut on the inside.
- 4.2.7 Repeat for remaining lanyards.
- 4.2.8 Insert sling (SKY-SL) bottom into the crossbar slot from inside to outside with label facing away from trolley, following through the girth hitch end of sling, pull tight
- 4.2.9 Repeat for opposite sling.
- 4.2.10 Hold up trolley and check that all shackles, lanyards, slings, and the crossbar are oriented correctly.
- 4.2.11 Tighten all shackles with ½" Socket Wrenches by tightening bolt first and then the lock nut, ensuring that bolt is flush with end of nut.

#### **4.3 Procedure for Assembling MAG Rocket Prone (SKY-RT-MB-02)**

- 4.3.1 The Rocket Prone requires no additional assembly from the warehouse.

#### **4.4 Procedure for Installing MAG Rocket Wheels (SKY-MB-W-01, SKY-W-S04, SKY-RT-S05, SKY-W-S03)**

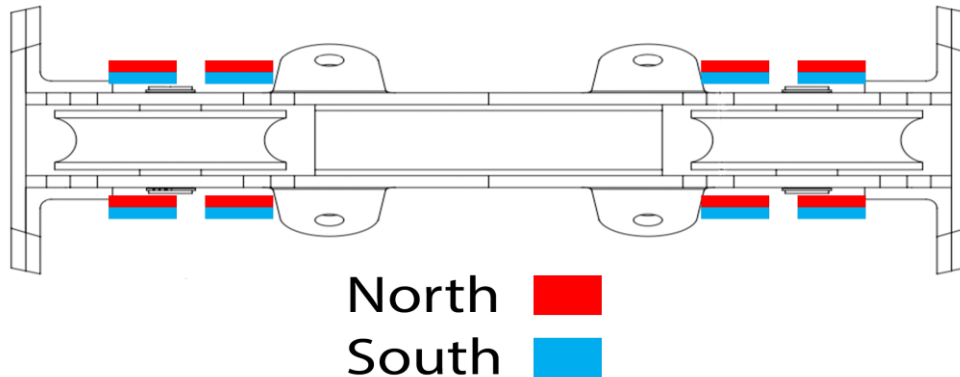
Tools Required: External Retaining Ring Pliers (0.052" Tips)

- 4.4.1 Align wheel (SKY-MB-W-01) with trolley body axle holes with one axle spacer (SKY-W-S04) on each side.
- 4.4.2 Insert axle (SKY-RT-S05) through trolley body, spacers, and wheel.
- 4.4.3 Using the snap ring pliers, install snap rings (SKY-W-S03) on both sides ensuring a tight fit on axle slots.
- 4.4.4 Inspect installation for free spinning wheel, less than 1mm of movement of wheel side-to-side, and no slop of axle in trolley body.
- 4.4.5 Repeat for second wheel.

#### **4.5 Procedure for Installing MAG Trolley (Prone and Seated) Magnets**

- 4.5.1 Once wheels are installed, insert 1-4 magnets (SKY-MB-W-03) (depending on braking needs) into the 1-4 holes on one side of the trolley.

**\*NOTE:** It is important that if both holes for one wheel have magnets, that they must have the same polarity, meaning both negative (-) facing the wheel or both positive (+) facing the wheel. Note that same polarities will repel each other, and opposite polarities will attract each other. If the magnets are installed improperly, the magnetic braking will be less effective. See figure below.



- 4.5.2 Place the trolley on its side with the magnets facing up and drop a parallel Mag Screw Plate (SKY-MB-W-04) from about 2 inches above the trolley onto the magnets with the flat end facing towards the end plate and flipped so the screw holes align. (The dropping of the plate prevents the strong magnets from being pulled out of the trolley)
- 4.5.3 Align the holes and screw/tighten all 6 screws on this side of the trolley.
- 4.5.4 Flip the trolley
- 4.5.5 The next 1-4 magnets must also be installed either “-” or “+” to the magnet installed next to it. (see note above) Furthermore, these magnets should be installed so that they are opposite polarity when compared to the magnet directly across the wheel.
- 4.5.6 Once the magnets are placed in the holes repeat steps 4.5.2 and 4.5.3.

**WARNING:**

**-BE CAUTIOUS WHEN REMOVING MAGNETS AS THEY ARE VERY STRONG AND CAN BREAK IF THEY SNAP TOGETHER.**

## 5.0 Standard Operating Procedures



The following operating procedures outline only the necessary steps required to complete each process. The procedures do not consider additional safety requirements and additional safety considerations that should be considered for each site. Please consult a qualified person and/or your site-specific manual to ensure all necessary steps are taken to guarantee safety in your operations.

### 5.1 Standard Procedure for Loading – MAG Rocket Seated with Crossbar

- 5.1.1 Take a trolley from the guest
- 5.1.2 Attach the trolley backup tether to the rear of the trolley
- 5.1.3 Detach the trolley handles, by sliding the handle assembly apart
- 5.1.4 Place the guest trolley on the cable
- 5.1.5 Secure the trolley into the trolley release mechanism
- 5.1.6 Slide the trolley handles together to reassemble the handle
- 5.1.7 Attach the Guest safety tether to the rear attachment point of the trolley
- 5.1.8 Attach the 2 trolley slings to the 2 carabiners on the guest harness, ensure the carabiners lock
- 5.1.9 Ask the guest to sit down in the harness
- 5.1.10 Remove the trolley safety tether
- 5.1.11 Perform final 2-2-4 check by squeeze checking the main trolley carabiner and the two Austri-Alpin Harness carabiners, check all four adjustable straps
- 5.1.12 Remove the guest deck restraint tether(s)
- 5.1.13 Release the trolley from the trolley launch mechanism

### 5.2 Standard Procedure for Removal – MAG Rocket Seated with Crossbar

- 5.2.1 Bring guest to dismount position and loosen shoulder straps
- 5.2.2 Position ladder at a slight angle to cable and assist guest into position on ladder
- 5.2.3 Guide then climbs other side of ladder and releases secondary tether
- 5.2.4 Release Guest Harness Carabiners
- 5.2.5 Assist guest down ladder and usher guest to designated waiting area
- 5.2.6 Take trolley out of catch block teeth by pulling outwards on teeth
- 5.2.7 Grab brake line under arm
- 5.2.8 Open trolley crossbar
- 5.2.9 Remove trolley from cable

### **5.3 Standard Procedure for Loading – MAG Rocket Prone**

- 5.3.1 Instruct the guest to move into position under a cable
- 5.3.2 Take the trolley from the guest and place the trolley on the cable
- 5.3.3 Secure the trolley into the trolley release mechanism
- 5.3.4 Attach the trolley safety tether to the guest's trolley
- 5.3.5 Attach the upper carabiner on the guest harness to the front connection point on trolley
- 5.3.6 Attach the lower carabiner on the guest harness to the rear connection point on the trolley
- 5.3.7 Ask the guest to lean forward, putting weight on the harness, lift their lower body up and adjust strap for desired ride angle
- 5.3.8 Ensure harness straps are properly adjusted
- 5.3.9 Perform final check by checking that both carabiners are attached and locked (gate squeeze check) and both shoulder straps and both cobra lock belts are properly adjusted and secured
- 5.3.10 Remove the guest platform travel restraint tether
- 5.3.11 Remove the trolley travel restraint tether
- 5.3.12 Release the trolley from the launch mechanism

### **5.4 Standard Procedure for Removal – MAG Rocket Prone**

- 5.4.1 Bring guest to dismount position and loosen lower strap to full length
- 5.4.2 Position ladder at a slight angle to cable and assist guest into position on ladder
- 5.4.3 Remove lower strap from trolley
- 5.4.4 Guide then climbs other side of ladder and releases secondary tether
- 5.4.5 Have guest stand fully upright and remove upper strap from trolley while stabilizing trolley with one hand
- 5.4.6 Assist guest down ladder and usher guest to designated waiting area
- 5.4.7 Take trolley out of catch block teeth by pulling outwards on teeth
- 5.4.8 Grab brake line under arm
- 5.4.9 Remove trolley from cable

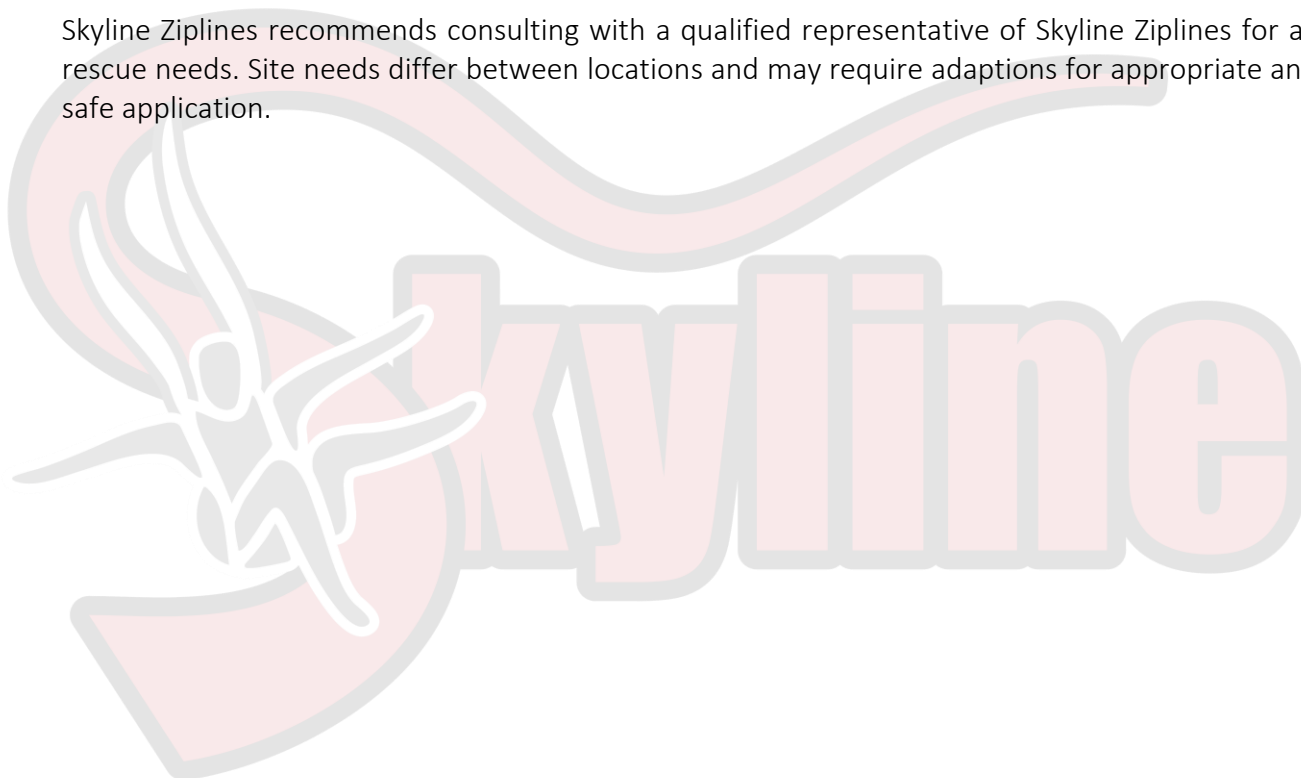
### **5.5 Standard Procedure for Guide Self Launch – MAG Rocket Seated**

- 5.5.1 Attach guide platform restraint tether
- 5.5.2 Attach the trolley safety tether to the guide trolley
- 5.5.3 Detach the trolley handles, by sliding the handle assembly apart
- 5.5.4 Place the guides trolley on the cable
- 5.5.5 Secure the trolley into the trolley release mechanism

- 5.5.6 Slide the trolley handles together to reassemble the handle
- 5.5.7 Attach the guide safety rope to the center point on the trolley
- 5.5.8 Attach the trolley slings to the guide harness carabiner, ensure it is locked
- 5.5.9 Sit down in the harness to affirm the harness attachment to the trolley
- 5.5.10 Detach the guide deck travel restraint tether
- 5.5.11 Detach the trolley safety restraint tether
- 5.5.12 Release from the trolley release mechanism

## 5.6 Standard Procedure for Rescue

Skyline Ziplines recommends consulting with a qualified representative of Skyline Ziplines for all rescue needs. Site needs differ between locations and may require adaptations for appropriate and safe application.



## 6.0 Training

It is the responsibility of the buyer/user of this equipment to make sure that they understand these instructions and are sufficiently trained in the correct use and care of this equipment. The user must be aware of the operating characteristics, application limits, and the consequences of improper use. Training must be done prior to use and user must be evaluated for his/her competence to use this equipment. Gaining an adequate education in proper techniques and methods of safety is your own responsibility. Training should be done under the supervision of competent persons.

It is recommended that Skyline Ziplines perform a manufacturer's training to cover the material in this document, use with other equipment, and site-specific training.

*\*Competent Persons: (OSHA) One who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are hazardous or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.*



## 7.0 Inspection

### 7.1 Frequency

- 7.1.1 The Skyline trolley, slings, and lanyards must be inspected before each use and recorded in the inspection log
- 7.1.2 The Skyline trolley, slings, and lanyards must be inspected by the manufacturer or approved competent person(s) at least once a year (or more frequently if deemed necessary by the frequency and/or conditions of use). The results of this formal inspection must be recorded in the inspection and maintenance log at the end of this manual.

### 7.2 Inspection Process

The daily pre-use inspection process is included in Appendix A. The forms available in this manual may be used for operations and as a template for site specific forms. It is critical that every item presented on the provided form is inspected and documented.

### 7.3 Weekly Inspection Process

The weekly inspection process is included in Appendix A. The weekly inspection for the Rocket Trolley focuses on wheel degradation and requires the use of a skyTECH Wheel Go-NoGo Gauge. Additional items are included on the weekly inspection. The forms available in this manual may be used for operations and as a template for site specific forms. It is critical that every item presented on the provided form is inspected and documented.

### 7.4 Documentation Process

Located in Appendix A is a sample Inspection form that Skyline Ziplines recommends using as a template. Located in Appendix B is a sample Maintenance form that Skyline Ziplines recommends using as a template. Located in Appendix C is a flowchart explaining the appropriate process for inspections, maintenance, and documentation. It is important to reference this flowchart for proper Quality Assurance documentation.

### 7.5 Lock Out, Tag Out

To ensure the highest standard of safety, it is required that all sites produce a Lock Out, Tag Out system. The system/process is designed to identify and prevent the use of all equipment identified through the inspection process as REJECTED (not suitable for use). Below is an example provided by Skyline Ziplines and is also included in the flowchart in Appendix C:  
(Procedure on next page)

- 7.5.1 Item identified as rejected or failed during inspection by staff member
- 7.5.2 Failure/rejection is noted on inspection log
- 7.5.3 Item is marked with a tag with the following information:
  - 7.5.3.1 Name of staff member
  - 7.5.3.2 Date of inspection
  - 7.5.3.3 Reason for rejection
- 7.5.4 Item is placed in designated Lock Out, Tag Out area. This area must be separate from the operating equipment area to avoid any chance of use





## 8.0 Maintenance and Storage

### 8.1 Storage

Proper storage of equipment leads to longer equipment life and assurance of the integrity of the product. Follow the below guidelines:

- Store the product in a cool, dry, and clean environment out of direct sunlight
- Avoid areas that vapors may exist
- Avoid stacking trolleys on top of each other and metal to metal contact
- Thoroughly inspect all equipment after extended storage

### 8.2 Replacement Parts and Repairs

All replacement parts must be purchased through Skyline Ziplines Ltd. All equipment repairs must be performed by the following: Skyline Ziplines Ltd, an authorized contractor/vendor of Skyline Ziplines Ltd with approval or trained and authorized onsite personnel.

### 8.3 Trolley Maintenance – Cleaning a Trolley

Tools Required: Water, soap, and a rag

- 8.3.1 Rinse trolley unit off with water to remove major debris
- 8.3.2 Mix water and soap in a container, use a rag to clean with mixture
- 8.3.3 Inspect unit and record maintenance in log (Appendix B)

### 8.4 Trolley Maintenance – Replacing a Wheel, Axle, Snap Ring, or Axle Spacer

Tools Required: External Retaining Ring Pliers (0.052" Tips), rubber mallet

- 8.4.1 Using snap ring pliers, remove the Snap Rings (SKY-W-S03) from both sides of the axle (SKY-RT-S05)
- 8.4.2 Use a rubber mallet moderately to remove the axle
- 8.4.3 Remove the wheel (SKY-MB-W-01) and axle spacers (SKY-W-S04)
- 8.4.4 Perform required maintenance and an in-depth inspection of the unit to address any additional concerns
- 8.4.5 Insert wheel (SKY-MB-W-01) and axle spacers (SKY-W-S04) together into the wheel slot
- 8.4.6 Align wheel, axle spacers, and axle hole on trolley body
- 8.4.7 Insert axle (SKY-RT-S05), moderately using a rubber mallet only if required
- 8.4.8 Install Snap Rings (SKY-W-S03) on axle on both sides ensuring that they settle into axle indentations
- 8.4.9 Inspect unit and record maintenance in log (Appendix B)

### 8.5 Trolley Maintenance – Replacing a Shackle or Lanyard

Tools Required: ½" Socket (2), Socket Wrench (2)

- 8.5.1 Remove the nylon locking nut from the shackle bolt (SKY-RT-S03) using the two wrenches
- 8.5.2 Remove the shackle bolt from the shackle using one wrench
- 8.5.3 Perform required maintenance and an in-depth inspection of the unit to address any additional concerns
- 8.5.4 Install shackle bolt into shackle, tightening down completely
- 8.5.5 Install nylon locking nut onto shackle bolt until one thread is visible
- 8.5.6 Inspect unit and record maintenance in log (Appendix B)

## 8.6 Trolley Maintenance – Replacing a Crossbar Grip

Tools Required: Razor blade, alcohol or hand sanitizer gel

- 8.6.1 Using the razor blade, cut the grip lengthwise (do not apply too much cutting pressure) and remove grip (SKY-MB-S02) from the crossbar (SKY-MB-S01)
- 8.6.2 Clean the exposed crossbar with alcohol
- 8.6.3 Wet bar and inside of grip with alcohol or hand sanitizer gel
- 8.6.4 Slide new grip (SKY-MB-S02) onto crossbar
- 8.6.5 Let dry for 24 hours
- 8.6.6 Inspect unit and record maintenance in log (Appendix B)



## 9.0 Lifetime

The maximum lifetime of a Skyline Ziplines Trolley, sling, or lanyard is 5 years after initial date of service or purchase date (when date of service is not available). This lifetime is applicable only to equipment that has undergone regular inspections prior to each use without revealing an anomaly. The actual lifetime depends on the intensity and the frequency of use as well as the environment. An exceptional circumstance might limit the product lifetime to a single use. A product that was not inspected at least once per year should be removed from service and replaced.

## 10.0 Incident and Failure Reporting

In the unfortunate situation that a Skyline trolley, sling or lanyard is involved in an incident or a failure, please notify Skyline Ziplines immediately so that prompt corrective measures can be taken by Skyline Ziplines. Product Safety Alerts are available at request and are sent out to all previous customers via email.

Complete information concerning the incident (date, location, details as to event and consequence, etc.) must be communicated to [admin@skylineziplines.ca](mailto:admin@skylineziplines.ca) and/or called into the office at 604-905-4149.

Skyline Ziplines will investigate the incident and if a product recall alert is required, shall notify all known customers and distributors who have purchased the product.



## 11.0 Warranty

Subject to the following limitations, terms, and conditions, Skyline Ziplines LTD warrants to the original purchaser of each Product that such Products when purchased new, are free of defects in materials and workmanship. This limited warranty may be exercised for a period of up to one year from the date of receipt. This limited warranty does not apply to normal wear and tear, nor to claimed defects, malfunctions or failures that result from abuse, neglect, improper assembly, improper maintenance, alteration, collision, crash, or misuse.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, SKYLINE ZIPLINES LTD DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PURPOSE. SKYLINE ZIPLINES LTD'S RESPONSIBILITY FOR WARRANTY CLAIMS IS LIMITED TO, AT SKYLINE ZIPLINES LTD'S SOLE DISCRETION, REIMBURSEMENT OF THE ORIGINAL PURCHASE PRICE, REPAIR OF THE PRODUCT, OR REPLACEMENT OF THE PRODUCT WITH THE SAME OR SIMILAR PRODUCT. NOTWITHSTANDING anything in THESE TERMS to the contrary, SKYLINE ZIPLINES LTD SHALL NOT be responsible or held liable for punitive, indirect, incidental or consequential damages, including without limitation, liability for loss of use, loss of profits, loss of Product or business interruption however the same may be caused, including fault or negligence of SKYLINE ZIPLINES LTD.

To exercise rights under this limited warranty, Customer must return the affected Product to Skyline Ziplines LTD (unless otherwise instructed by Skyline Ziplines LTD) to:

SKYLINE ZIPLINES LTD  
6-1006 LYNHAM ROAD  
WHISTLER, BRITISH COLUMBIA, CANADA V8E 0S3

Skyline Ziplines LTD will use reasonable commercial efforts to return all product in a timely manner to the designated location and will be responsible for all shipping costs. Skyline Ziplines LTD reserves the right to modify this limited warranty at any time, in its sole discretion.

## *Appendix A – Inspection Forms*

\*Sample files available upon request

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### Inspection Information

**Frequency:** Daily Pre-Use

**Models:** MAG SEATED -SKY-RT-MB-01, MAG PRONE- SKY-RT-MB-02

**Performed By:** Trained Staff Member

**Manufacturer:** Skyline Ziplines LTD.

Inspect all matching equipment in accordance with the inspect criteria listed below. At the bottom, record the equipment's disposition by marking the appropriate ID number. If the answer is YES to one or more of the following questions, the unit is deemed UNFIT for service.

### 1. Known Equipment History

- Has the unit been used by a person weighing more than 310 lbs?
- Has the unit received forces resulting from a fall or shock loading without a subsequent inspection?
- Has the unit been exposed to detrimental chemical products or an intensive source of heat?
- Has the unit been formally inspected within the last year by a competent person?

### 2. Preliminary Observations

- Are all tags and labels attached and legible?
- Has the unit exceeded its lifetime?
- Has the product undergone modifications or alterations not performed or authorized by the manufacturer?

### 3. Trolley Body Inspection

- Are there any visual indications of damage: loose/missing rivets, cracks, bent metal, or excessive wear?
- Are there any missing or improperly fastened snap rings?
- Are there any problems with the wheels spinning freely?

### 4. Textile Inspection

- Are there any excessive abrasions, cuts, melting, discoloration or other damages present on the Slings or Lanyards?
- Are there any issues with stitching such as broken or pulled stitches, worn threads, or other issues?

### 5. Hardware Inspection

- Is there any loose or missing hardware?
- Is there any deformation, marks, cracks, wear, corrosion, rust, bent metal, or other issues with metallic components?

**Disposition:** Circle all ID number's correlating with all units that have PASSED the inspection and are FIT for service

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

**Failed Equipment:** List all ID numbers for units deemed UNFIT for service. Consult the manual for proper Lock Out, Tag Out Protocol

### Notes/Comments

Inspected By:

Date:



# INSPECTION FORM I-23

## skyTECH MAG Rocket Trolley



### Inspection Information

**Frequency:** Weekly

**Performed By:** Trained Maintenance Personnel

**Models:** MAG SEATED -SKY-RT-MB-01, MAG PRONE- SKY-RT-MB-02

**Manufacturer:** Skyline Ziplines LTD.

Inspect all matching equipment in accordance with the inspect criteria listed below. At the bottom, record the equipment's disposition by marking the appropriate ID number. If the answer is YES to one or more of the following questions, the unit is deemed UNFIT for service.

#### 1. Wheel Inspection

- Are there any visual indications of damage to the wheels: cracks, glossy texture, loss of material, deformation?
- Using the Rocket Wheel Go-NoGo Gauge, measure all wheels. Does the Go-NoGo Gauge fit over the wheel? Min. diameter = 75mm

#### 2. Crossbar Inspection

- Inspect the crossbar endscaps, is the fitment loose or the welds compromised?

#### 3. Trolley Body Inspection

- Are there any visual indications of damage: loose/missing rivets, cracks, bent metal, or excessive wear?
- Are there any missing or improperly fastened snap rings?
- Check the snap ring indents of the wheel axles, is there any wear, deformation, loss of material, or rounding of edges?

#### 4. Textile Inspection

- Are there any excessive abrasions, cuts, melting, discoloration or other damages present on the Slings or Lanyards?
- Remove all slings from the crossbar to perform an in depth inspection. Is there any damage in this area?

#### 5. Hardware Inspection

- Check all shackles, is there any loose or missing hardware?
- Is there any deformation, marks, cracks, wear, corrosion, rust, bent metal, or other issues with metallic components?

**Disposition:** Circle all ID number's correlating with all units that have PASSED the inspection and are FIT for service

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

**Failed Equipment:** List all ID numbers for units deemed UNFIT for service. Consult the manual for proper Lock Out, Tag Out Protocol

#### Notes/Comments

Inspected By:

Date:

## *Appendix B – Maintenance Log*

\*Sample files available upon request

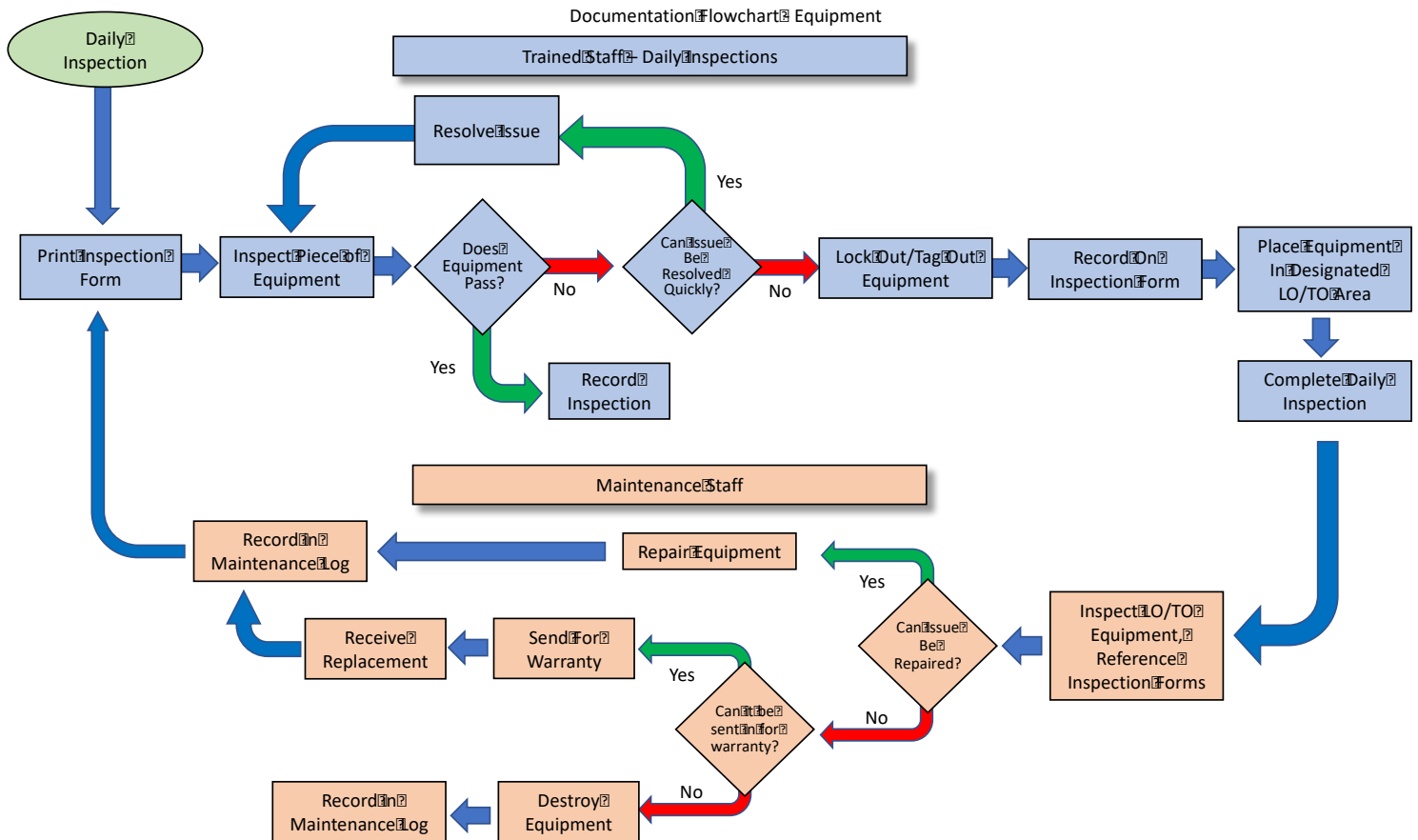
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MAINTENANCE FORM  
SKYTECH MAG ROCKET TROLLEY



Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED
Unit ID:	Performed By:	Date:
Work Performed:		Vedict (Circle One): FIT UNFIT RETIRED

## Appendix C – Documentation Process Flowchart





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