

# BUCKINGHAM MFG.

## PN 126K and 126DK BuckIt™ Restraint Systems

Buckingham's bucket restraint system was designed to address the revised OSHA 1910.267 (C) (2) (V) regulations pertaining to the use of fall protection equipment in a bucket truck. The concept being to secure a rated strap around the basket and uses two attachment points to prevent the worker from falling or being catapulted from the basket. In the event the basket was to separate from the boom, an energy absorbing device is attached from the basket back to the boom, that will keep the worker and the basket from hitting the ground. This system fits both single man and man and a half baskets.

### Components of the Buckingham BuckIt™ Restraint Systems

Fig. A – PN 126K

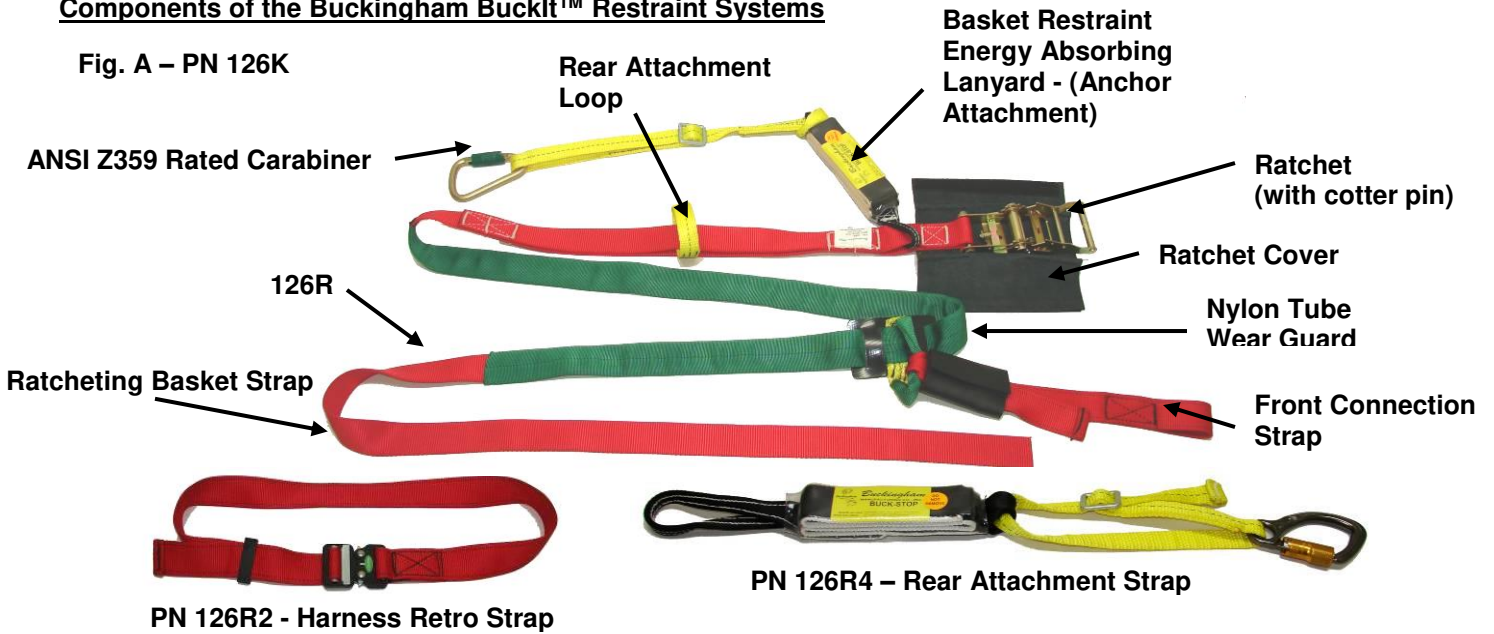
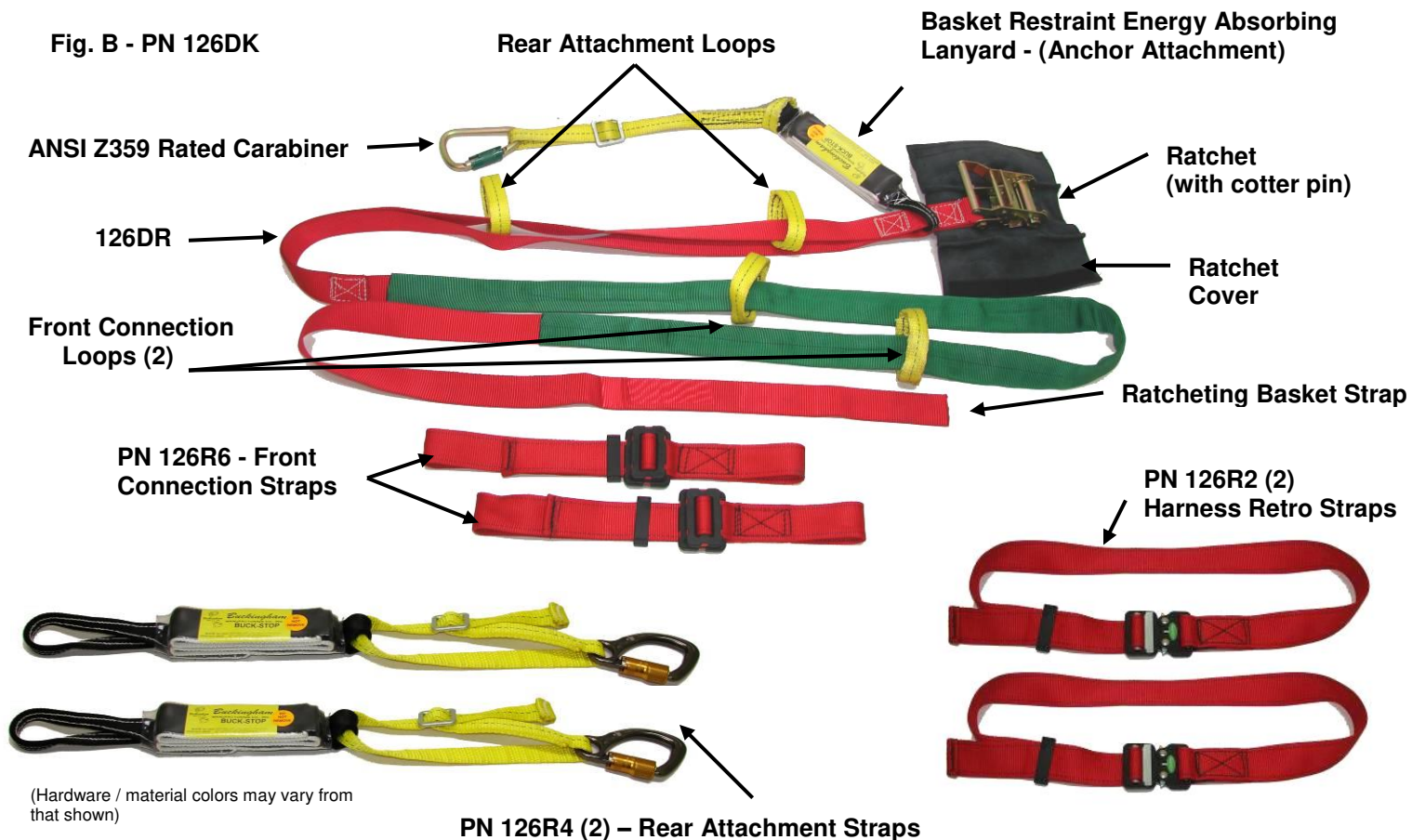


Fig. B - PN 126DK





PN 126R Mounted on a Single Man Bucket



PN 126DR with two 126R6 Front Connection Straps Mounted on a Two Man Bucket

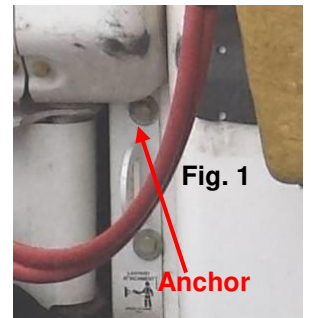
**Warning:**

Ensure:

- complete and proper installation of this system,
- the waist belt / harness is properly secured to the user.
- the Ratcheting Basket Strap is properly attached to the basket.
- the Front Connection and Rear Attachment Straps are properly attached to the user and to the Ratcheting Basket Strap.
- the Energy Absorbing Lanyard is attached to the anchor point of the boom/ truck before elevating the basket.

**Installation of the BuckIt™ Restraint System:**

1. Locate a suitable anchor point that is connected to the boom (Fig. 1) and determine the best location to position the Basket Restraint Energy Absorbing Lanyard.  
Note: Buckingham PN 3809R – Ratcheting Boom Strap Anchorage may be used to provide a suitable anchor directly on the boom.
2. Place the Ratcheting Basket Strap just under the lip of the basket, positioning the rear attachment loop(s) across the back of the basket (Fig. 2 – 3). The position the front connection loop(s)/ strap(s) should be opposite the rear connection loop(s) centered on the front of the basket (Fig. 2a – 3a).



Note: The Basket Restraint Energy Absorbing Lanyard must connect back to a suitable anchor point on the boom / truck.

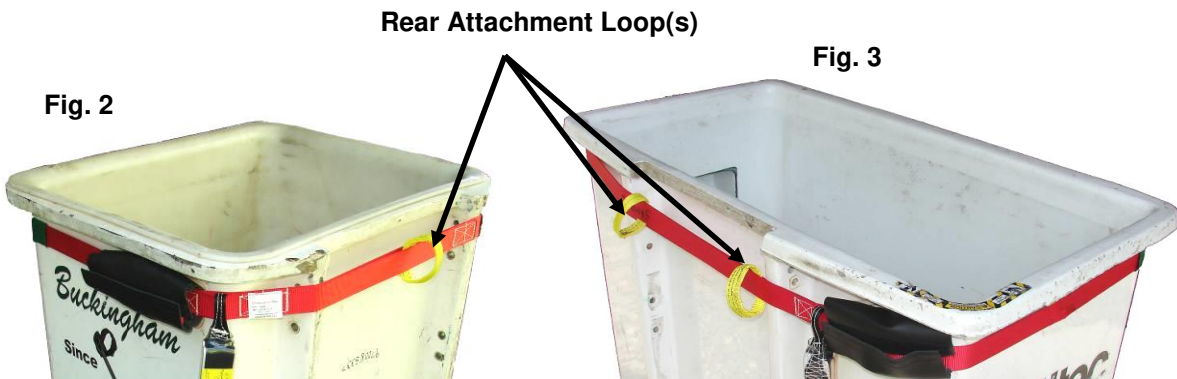


Fig. 2

Fig. 3

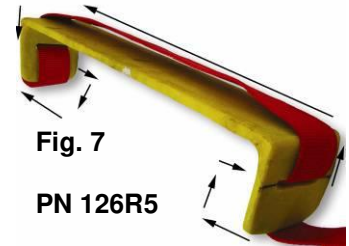
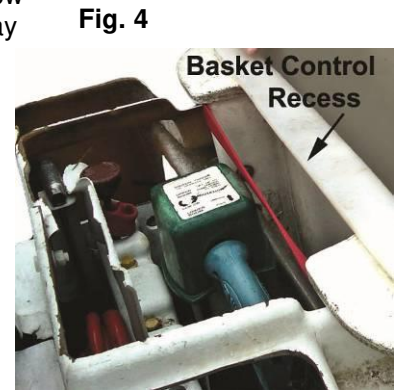
Fig. 2a

Fig. 3a

Front Connection Loop(s) / Strap(s)

## Optional - Recess Bracket Installation

Note: Some aerial baskets are manufactured with a recess near the hinge point to allow for access to controls (see Fig. 4). If your basket has this recess, the restraint strap may interfere with the operation of the controls as shown in Fig. 5. To correct this situation, insert the optional Recess Bracket (Buckingham PN 126R5) under the lip of the basket directly in front of the recess and in between the mounting ribs of the basket. To install, align the Recess Bracket so that its flat section is towards the outside flat of the basket with the bracket ears facing the controls (see Fig. 6). Thread the webbing of the Ratcheting Basket Strap through the Recess Bracket as shown in Fig. 7 and then continue to wrap around the basket.



3. Ensure there are no twists in the webbing when it is wrapped around the perimeter of the basket.
4. Insert the end of the webbing through the ratchet and re-adjust if needed so the Front Connection Loop(s)/ Strap(s) are properly positioned on front of the basket opposite the Rear Attachment Loop and centered.
  - a. Tighten the Ratcheting Basket Strap to create a tight fit around the basket.
  - b. Insert the cotter pin through the pre drilled hole in ratchet mechanism and bend the legs of the cotter pin outward to ensure the pin cannot be unintentionally removed (Fig. 8).
  - c. Fold the excess webbing over the ratchet (Fig. 9) and wrap the ratchet jacket over the ratchet and excess webbing securing the hook and loop fastener in the closed position (Fig. 10).

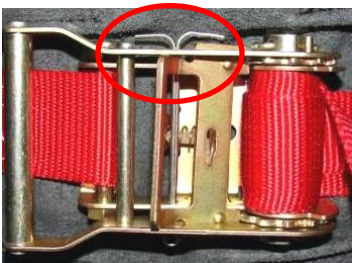


Fig. 8



Fig. 9



Fig. 10

5. Attach the carabiner of the Basket Restraint Energy Absorbing Lanyard to a suitable anchor point on the trucks boom (Fig. 11 – 13) and ensure the keeper / gate is completely closed. Never rely on the feel or sound of a snap hook / carabiner engaging. Anchor points may be of different configurations or locations dependant on the boom / truck manufacturer. See boom / truck manufacturer's instructions for appropriate anchor point connection.



Fig. 11



Fig. 12



Fig. 13

## ATTACHING THE HARNESS RETRO STRAP TO A FULL BODY HARNESS:

### 126R1 Harness Retro Strap with Interlocking Buckles (Fig. 14)

### 126R2 Harness Retro Strap with Quick Connect Buckles (Fig. 15)

P/N 126R1 and 126R2 Harness Retro Straps are designed for use with Buckingham's BuckIt™ RESTRAINT SYSTEMS (P/N 126R / 126DR). They are not to be used for any other purpose.

1. Buckingham harnesses are manufactured with slots at the rear of the harness where the back straps intersect the leg straps (Fig.16). Lay the harness on a flat surface with the front of the harness facing you, ensure the harness is not tangled or twisted and locate these slots (Fig. 17).



Fig. 16

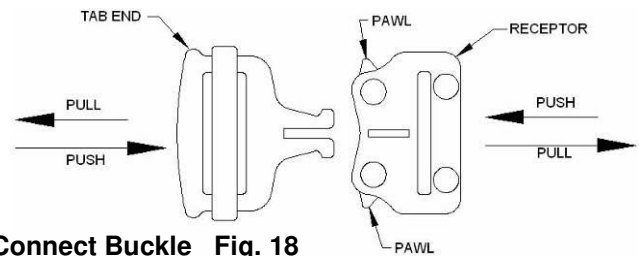
Harness Slot



Fig. 17

Harness Slots

2. Prior to threading: Disconnect the Harness Retro Strap buckle. PN 126R2 Only: Ensure the Connection Strap is attached to the Tab End (Fig. 18) side of the Harness Retro Strap as shown in Fig. 15.



Quick Connect Buckle Fig. 18

3. Insert the Harness Retro Strap small end (PN 126R1) / receptor end (PN 126R2) of the buckle through the first slot from the right or left side and thread from the outside of the harness towards the inside (Fig. 19) and then bring the strap across to the other side of the harness.
4. Now thread the small end (PN 126R1) / receptor end (PN 126R2) of the buckle through the other slot in the harness from the inside out (Fig. 20). Ensure the Harness Retro Strap goes through both slots, not behind the straps.

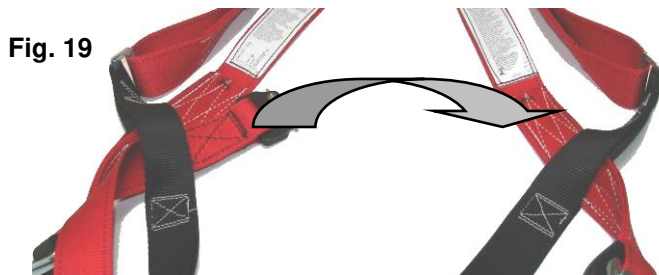


Fig. 19



Fig. 20

5. Continue threading the Harness Retro Strap through both slots until the buckles are positioned offset to one side so that when connected, strap travel will not be impeded by the connection strap.
6. Connect the buckle and secure the excess billet end of the strap in the keeper so that the harness retro strap forms a waist strap (Fig. 21 and 22). Ensure the buckle is properly connected prior to each use.

Fig. 21



Fig. 22



Harness Retro Strap (126R2 shown)

**Connecting The Front Connection And Rear Attachment Straps To The BuckIt™ Restraint System:**

Ensure the 126R4 Rear Attachment Strap is properly attached to the rear fall arrest attachment point of your harness. The 126R4 Rear Attachment Strap is manufactured with a nylon web loop and must be attached to the harness fall arrest attachment point with a hitch (See Fig. 23),

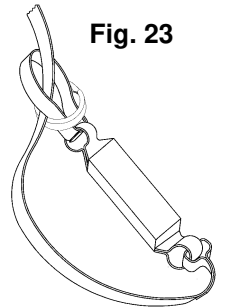


Fig. 23

1. Connecting the 126R4 Rear Attachment Strap to the 126R / 126DR Basket Restraint Strap.
  - a. Open the carabiner of the 126R4 Rear Attachment Strap (Fig. 24).
  - b. Connect the carabiner to the Rear Connection Loop on the 126R / 126DR Basket Restraint Strap (Fig. 25)
  - c. Ensure the gate of the carabiner is completely closed (Fig. 26).
  - d. When properly attached to the harness and the Basket Restraint Strap the 126R4 Rear Attachment Strap should appear as shown in Fig 27.



Fig. 24



Fig. 25



Fig. 26



Fig. 27

2. Connecting to the Front Connection Strap of the 126R (126K System Only).
  - a. Disconnect the buckle of the Harness Retro Strap (126R1 / 126R2).
  - b. Insert the buckle of the Harness Retro Strap through the top loop on the 126R Front Connection Strap (Fig. 28).
  - c. Connect the Harness Retro Strap Buckle (Fig. 29).
  - d. Position the buckle so that it is offset to one side so that when connected the Harness Retro Strap travel will not be impeded by the connection strap (Fig. 30).



**Fig. 28**



**Fig. 29**



**Fig. 30**

3. Connecting the 126R6 Front Connection Strap to the Harness Retro Strap (126DK System Only).
  - a. Disconnect the buckle of the Harness Retro Strap (126R1 / 126R2).
  - b. Insert the buckle of the Harness Retro Strap through the loop of the 126R6 Front Connection Strap (Fig. 31).
  - c. Connect the Harness Retro Strap Buckle (Fig. 32).
  - d. Position the buckle so that it is offset to one side so that when connected the Harness Retro Strap travel will not be impeded by the connection strap (Fig. 33).



**Fig. 31**



**Fig. 32**



**Fig. 33**

- 3A. Connecting the 126R6 Front Connection Strap to the Front Connection Loop of the 126DR Basket Strap.
  - a. Separate the interlocking buckle of the PN 126R6 and feed the smaller side through the Front Connection Loop of the 126DR Basket Strap (Fig. 34).
  - b. Reconnect the interlocking buckle (Fig. 35 & 36).



**Fig. 34**



**Fig. 35**



**Fig. 36**

## **Adjustment of Connection Straps**

Adjust the front and rear connections straps so the user can not lift off the bottom of the bucket by no more than 2". System should be properly attached / adjusted and ready for use.

**INSPECTION:** Prior to and after each use, carefully inspect each component. Supplement these inspections with periodic inspections on a monthly basis even if the product has not been used. The inspection should include, but not be limited to the following:

**Webbing:** Ensure webbing is free from cuts, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, cracks, charring, broken fibers, loose stitching, chemical or physical exposures.

**Stitching:** Ensure there is no loose stitching, broken, cut or burned threads.

**Buckle:** Ensure the buckle has no cracks, distortion and /or excessive nicks, corrosion, etc. that may be detrimental to its intended function.

**Harness:** Inspect as outlined in the instructions and warnings that accompany the product.

**Snap Hook and Carabiner:** Ensure locking device and keeper / gate operate freely and smoothly. Inspect to ensure no cracks, distortion, corrosion or nicks exist. If any evidence of wear or deterioration as outlined is observed, immediately cease use, destroy the product, and replace it with new equipment.

If any evidence of wear or deterioration as outlined is observed, immediately cease use, destroy the product, and replace it with new equipment. Should any unusual conditions not outlined above be observed or you have reasonable doubt about a particular condition, remove the equipment from service and notify your Supervisor, Safety Director, or contact Buckingham Mfg. Co. for clarification. Read and understand the locking Snaphook Inspection Procedure packed with this product. Failure to carefully and completely inspect your equipment could result in serious injury or death.

## **WARNINGS FOR QUICK CONNECT BUCKLE**

### **For your information and attention:**

Quick Connect Buckles may unintentionally disengage under the condition outlined below: If the pawls of the buckle do not freely rotate, proper engagement of the tab end to the receptor end of the buckle will be hindered / restricted. If as a result of the users movements or through contact with an obstruction during the course of his/her work, one of the two pawls of the receptor end of the buckle is depressed while tension is induced on the strapping attached to the buckle, the potential exists that disengagement of the tab end of that side from the pawl may occur. If that position is maintained and again through the user's movements or contact with an obstruction the opposite side pawl is depressed, the tab end of the buckle may totally disengage from the receptor end.

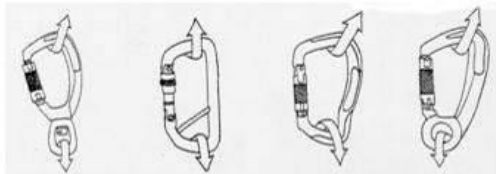
### **To eliminate the potential for this condition, you the user should:**

1. Inspect your equipment before each use as you would for all safety equipment. Equipment should be replaced if you have any question / doubt about it being safe for use.
2. Always position the buckles of your equipment so that contact with obstructions is avoided.
3. Test the pawls on your Quick Connect Buckles to ensure they freely rotate and return back to their original position. If any pawl does not freely rotate, the buckle should be (a) cleaned as outlined below to ensure there are no obstructions inside the buckle hindering its intended function and (b) lubricated with a lightweight lubricant such as WD-40® as recommended for locking snaphooks. If the pawl still does not freely rotate, you should contact Buckingham Mfg. at the telephone number outlined below and request a Returned Goods Authorization Number for immediate return of your product for our inspection and/or buckle replacement.
4. Ensure the receptor end and tab end of the Quick Connect Buckle is fully connected with both locking pawls engaged. When the two halves are properly attached together, a clicking sound should be heard. Complete by pulling the adjuster strap through the buckle and tighten until it is snug but comfortable, thus ensuring complete engagement.

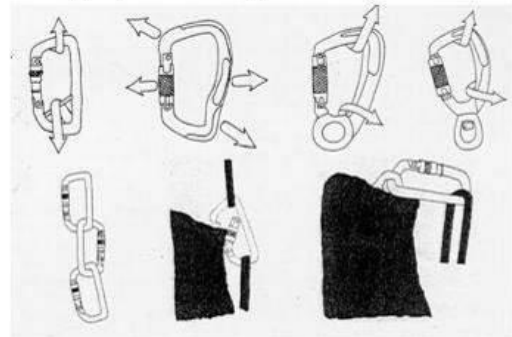
## WARNINGS:

- Read understand and follow all instructions and warnings attached and or packed with this product before use.
- This equipment is intended for use by properly trained professionals only.
- Fall protection equipment, (i.e. fall arrest, work positioning belts, retrieval, suspension etc.) should not be resold or provided to others for re-use after use by original user.
- Anchor points must support a minimum of 5000 lbs. per attached worker.
- Avoid rubbing system components against abrasive surfaces and sharp edges.
- Use this product only in combination with compatible equipment.
- Equipment subjected to impact loading must be immediately removed from service, destroyed and discarded.
- Always visually check that the snap hook / carabiner freely engages the anchor point and the keeper / gate is completely closed. Never rely on the feel or sound of a snap hook / carabiner engaging.
- Be certain the snap hook / carabiner is positioned so that its keeper / gate is never load bearing.
- Ensure loads applied to carabiners are directed in the proper orientation. (Proper and improper loading techniques are shown in Fig. 37).

Proper Loading Techniques



Improper Loading Techniques



- Never disable the locking mechanism on the snap hook / carabiner, punch holes in or alter a connecting device in any way.
- Do not let any part of this kit come into contact with any chemicals, corrosive materials, acids or basic solvents.
- Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user
- Employer - instruct employees as to proper use, warnings and cautions before use of this equipment.

**MAINTAINANCE:** Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance. Clean equipment with water and mild soap and allow to dry thoroughly without using excessive heat. Lubricate as necessary. Apart from visual examination of product before and after each use, it should be inspected at least once a year by an authorized person.

**NOTE:** This product can not be returned unless it is in new / unused condition.

Patented, for more information, visit [BuckinghamMFG.com/Patents](http://BuckinghamMFG.com/Patents).

Information contained in these written instructions supersedes all other information (written, audio, video etc.) produced by Buckingham Mfg. prior to the revision date of this document

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