# **BUCKINGHAM MFG.**

# PN REH5 "Y" Style Retro Fit Harness Instructions / Warnings

Warning: Do not use this product if you cannot understand and follow the instructions and warnings that come with it and complete all necessary functions.

Buckingham's PN REH5 "Y" Style Retro Fit Harness is designed to be attached to a PN 1490 Navigator Series Saddle with a date of manufacture of 11/22 or later to create a Full Body Harness as shown in Fig. 1. Navigator saddles manufactured prior to 11/22 are not compatible with the REH5 Retro Harness.

Fig. 1

#### NOTES:

- All Buckingham Retro Fit Harnesses must be properly coupled to a compatible ASTM F887 rated Arborist Saddle and with an ANSI Z359.12 compatible connector.
- This Retro Fit Harnesses is not to be used with non compatible Arborist Saddles.
- Arborist Saddle is sold separately.
- Hardware / material colors may vary from that shown below.

This "Y" Style Retro harness is supplied as shown below, with an attachment loop for carabiners on the front and with a Dorsal Attachment Strap at the rear.







# Harness Attachment to Arborist Saddle:

#### Rear Connection:

- Lay the saddle on a flat surface with the back side facing up and ensure the saddle is not tangled and has no twisted straps (Fig. 2).
- There is a section of the belt strap at the rear of the saddle that is not stitched to the back pad and is used as the retro harness attachment slot (Fig. 2).
- Insert a finger or two in the bottom of the harness attachment slot to create a gap (Fig. 3). Never use a sharp device to pry.
- Slide the tail end of the dorsal strap though the gap made between the belt strap and back pad (Fig 4 & 5)
- Loop the dorsal strap around the belt strap and under the accessory loop and up to the dorsal strap attachment buckle (Fig. 6).

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Fig. 3 Fig. 4 Fig. 5 Fig. 6

- Insert the dorsal strap through the back of the dorsal strap adjustment buckle and over the top of the slide bar (Fig. 7).
- Make a loop in the dorsal strap around the slide bar by pushing the strap through the front of the buckle and out through the rear (Fig. 8).
- Adjust the strap as needed and secure the free end in the elastic web keeper (Fig. 9).
- Tug down on the back side dorsal strap to ensure it grips and does not slide.







Fig. 7 Fig. 8 Fig. 9

#### Front Connection:

NOTE: Saddle is shown below without the rope suspension bridge for clarity purposes.

Fig. 10

- With the harness connected at the rear and hanging down behind you, don the saddle and adjust it to fit properly (Fig. 10).
- Ensure there are no twists or tangles in the harness.
- With the supplied carabiner attached to the harness, carefully pull the harness over your head so that the shoulder pads lie flat on your shoulders and the sternal strap connection loop is aligned with the center front of the saddle (Fig 11).
- The supplied sternal carabiner is to attach only through the sternal carabiner connection loop (rear loop) located on the front of the saddle web suspension bridge (Fig 12).
- NOTE: use only the rear sternal carabiner connection loop for a fall arrest harness attachment. The front center loop and outer two, are intended for suspension only, not for fall arrest connections (Fig. 13).
- If needed, rotate the carabiner so its smaller end is nested in the sternal strap connection loop of the harness (Fig. 14).
- Open the carabiner and insert it through the sternal carabiner connection loop of the saddle (Fig. 15).
- Close the carabiner and visually check that the gate is fully closed. The fully attached harness should appear as shown in Fig. 16).



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Notes\: The outer webbing at the center of the web suspension bridge is not stitched to the inner webbing section of the bridge, which creates a slot (Fig 17).

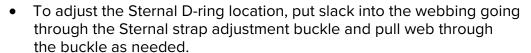
This slot is not to be used for any type of connection, such as, but not limited to Fall Arrest, suspension, positioning, restraint, etc.

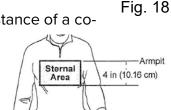
#### **Harness Adjustment:**

The Dorsal D-ring must be positioned in the upper, middle portion of your back and fall 2 in. above or below the underside of your armpit (Fig. 18).

- To adjust the dorsal D-ring lower, reach around your back and pull down on strap exiting the dorsal strap adjustment buckle.
- To raise the D-ring higher, put more slack in the dorsal strap loop by feeding the web back through dorsal strap adjustment buckle.
- When adjustment is complete secure the excess webbing of the dorsal strap in the elastic strap keeper.
- Note: Dorsal D-ring adjustment may require harness removal or the assistance of a coworker.

The Sternal D-ring location must fall from the underside of your armpit to 4 in. below (Fig. 19).





for connection

Dorsal

Area

Fig. 19

Fig. 17

- Armpit

2 in (5.08 cm)

2 in (5.08 cm)

- To raise the D-ring higher, put slack into the webbing and side the buckle upwards which will create a larger loop in the Sternal strap.
- To lower the D-ring, put slack into the webbing and slide the buckle downward which will create a smaller loop in the Sternal strap.
- This adjustment may also require harness removal or the assistance of a co-worker.

#### PN REH5 - Y Style Retro Harness Instructions / Warnings:

Manufacturer's instructions shall be provided to the user of this product. If additional copy is needed, contact Buckingham Mfg. Co. Read carefully, understand and heed these and all instructions, warnings and cautions before using this equipment. Failure to do so could result in your serious injury or death. Employer – instruct employee as to the proper use, warnings and cautions before use of this equipment.

Buckingham retro harnesses used with arborist saddles are intended as personal protection equipment for use by properly trained professionals only. Each piece of equipment is important in its function and design and in its relationship to all other components. Energy absorbing lanyards should be considered as a part of a personal fall arrest system used in conjunction with a harness. The energy absorber (pack end) must always be attached to the fall arrest attachment device included on the users equipment. Cover of energy absorber should not be removed and will not have any effect on the shock absorbing feature. Harnesses must be worn so the fall arrest attachment is centered in back near shoulder blade level. It is recommended that:

- A connecting device and fall arrest attachment manufactured with a web loop be attached with a hitch (See detail), or carabiner.
- If using a locking snap hook to a web loop fall arrest attachment the web loop must be protected by an integral wear piece to enhance visual inspection.
- All Web loop fall arrest attachments must be inspected before each use. The inspection should include, but not be limited to, inspecting for: webbing cuts, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, charring, broken fibers, loose stitching and chemical or physical exposures.

Note: The use of a locking snaphook to a web loop fall arrest attachment without an integral wear piece is acceptable in emergency situations (i.e. rescue, evacuation, etc.) Attachment of a locking snap hook to a web loop fall arrest attachment with no wear piece can cause premature wear of the webbing and stitching. This degradation can cause the web loop layers to separate and be incapable of supporting your weight. Therefore, the web loop fall arrest attachment must be inspected before use. Additionally, connections used to attach to the fall arrest attachment must have a minimum gate rating of 3600 lbf. and meet ANSI Z359.12 requirements.

OSHA requires that impact force in a fall <u>not</u> exceed an 1800 lbf. limit with a harness. Proper use of a harness with an energy absorbing lanyard will allow compliance with these limits when properly assembled.

Selection of products should be such that they aid the worker in the performance of his job and particular work situation. Be certain this equipment is suitable for the intended use and work environment. It should only be used as personal protection equipment If suitability for intended use is questionable, always consult your Supervisor, Safety Director or contact Buckingham Mfg. at (607) 773-2400 or 1-800-937-2825.

No fall protection system can guarantee that you will not sustain injuries should a fall occur. Therefore, lanyards should be kept as short as possible to minimize free fall distance. OSHA specifies that maximum length of lanyard shall provide for a fall of no greater than six (6) feet. In addition other factors such as harness stretch not to exceed 18", D-ring / connector length, settling of the user's body, lanyard length, including energy absorber extension and all other contributing elements should be such that the user can not fall a distance that will allow contact with any lower level. The lanyard attachment point on the user should be in the middle of the back near shoulder blade level. Do not lengthen a lanyard by tying or knotting to another lanyard or connecting a snap to a snap. Lanyards should not be shortened by knotting rope or webbing as this can reduce the strength by 50% or more. NOTE: The hitch detailed above is not considered a knot.

Do not alter your harness or any safety product in any way. If your harness does not fit properly, replace it with one of the correct size. Wear your harness snug but not tight.

Unless the snap hook is a locking type with minimum gate rating of 3600 lbf., meets ANSI Z359.12 requirements, and designed for the following connections, snap hooks shall not be engaged:

- directly to webbing, rope or wire rope
- to each other they are not intended to be used that way and could twist apart
- to a D-ring to which another snap hook or other connector is attached.

Incompatibly Dimensioned

Incompatibly Shaped

- to a horizontal lifeline
- to any object which is incompatibly shaped or dimensioned in relation to the snap hook such that the connected object could depress the snap hook keeper a sufficient amount to cause it to release. (See Illustration)

Thorough employee training in the selection and proper use of personal protection equipment is imperative.

### Warnings

- This product is designed to be used by a person with a maximum weight of 350 lbs. when fully equipped.
- 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 as assurance cannot be
  granted that a used product meets criteria of applicable standards and is safe for use to a
  subsequent user.
- Only Buckingham Mfg. Co. or those people authorized in writing by Buckingham Mfg. Co. may make repairs to this equipment.
- Buckingham requires using a triple action ANSI Z359.12 rated locking carabiner with a 3600 lb. rated gate.
- Equipment subjected to impact loading must be immediately removed from service, destroyed and discarded.
- In the event of a fall, the employer must have a rescue plan and the means to implement it.
- Attach only locking connecting devices meeting standards / regulations for intended use for fall arrest, positioning and suspension to rear fall arrest D-ring on harness and fall arrest anchor point, saddle / belt D-rings and attachment points.
- Only positioning connecting devices should be attached to side D-rings, as side D-rings are not intended for fall arrest.
- Do not connect any tools, accessory loops / snaps, etc. to the positioning D-rings. D-rings are for attachment of connecting device locking snap hooks only.
- For units with Work Position Web Loop(s): Buckingham recommends attachment only to carabiner. Buckingham Mfg. **does not** recommend attachment of a metal connector, other than a carabiner, to a web loop fall arrest attachment unless the web loop is protected by an integral wear piece, the connector meets the requirements of ANSI Z359.12 (3600 lbf. rated gate), the snap hook lock mechanism cannot inadvertently be depressed, and the web loop fall arrest attachment point is inspected prior to each use. Attachment of a metal connector, such as a locking snap hook, to a web loop fall arrest attachment with no wear piece can cause premature wear of the webbing and stitching. This degradation can cause the web loop layers to separate and be incapable of supporting your weight.
- If connecting to a personal fall arrest system by attaching directly through the web loop of an energy absorber carefully inspect the inside of the web loop for cuts, abrasions, broken strands, or excessive wear.

- Fall arrest anchor points must support a minimum of 5000 lbf. per attached worker and be independent of worker support.
- For fall arrest, always keep anchor point above rear fall arrest attachment. If climbing above anchor point, attach to a new anchor point higher up. When anchor point to allow for connection above the fall arrest attachment device is not available, lanyard positioning must be such that free fall will be limited to a maximum of 6 feet and there will be no contact with a lower level.
- Never use an energy absorbing lanyard for positioning. Unit can open and extend which could result in a fall.
- Always attach the energy absorbing lanyard to the rear fall arrest attachment device included on the users equipment.
- Always visually check that: 1) each snap hook / carabiner freely engages D-ring or anchor point, 2) keeper / gate is completely closed with each use. Never rely solely on the feel or sound of a snap hook / carabiner engaging.
- Make sure each snap hook / carabiner is positioned so that its keeper / gate is **never** load bearing.
- Never use combinations of components or sub systems, or both, which may affect or interfere with the safe function of each other.
- Ensure there is no pressure on the snap hook locking mechanism sufficient to depress it as this will, due to its length, render it incompatible with currently designed rings and make it very susceptible to rollout.
- Never disable locking keeper / gate on snap hook / carabiner, punch holes in or alter a connecting device in any way.
- Avoid contact of this equipment with sharp edges, abrasive surfaces, high temperature surfaces, welding, or other heat sources, electrical hazards or moving machinery. When not in use, store to prevent exposure to the elements as well as over exposure to sunlight (U.V. degradation).
- Never use any tool or sharp device to pry against webbing.
- Avoid contact of this equipment with chemicals that may damage the material. If in doubt, contact Buckingham Mfg. Co.
- This equipment is for personal use only, not towing or hoisting.
- **Never** work without independent fall arrest protection if there is danger of a fall.
- Always visually check that all buckles and snap hooks or carabiners are properly closed before use.
- Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user.

## Inspection

Inspection should occur prior to each use of the harness by the user and at a minimum of once a year by a competent person. Carefully inspect the harness for indications of wear, deterioration or impact loading. The inspection should include, but not be limited to, inspecting for:

- product with all leather strength components. If found, immediately cease use, discard and replace as product does not meet existing standards.
- webbing cuts, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, cracks, charring, broken fibers, loose stitching, chemical or physical exposures and buckle holes in strap are not damaged.
- loose, bent or pulled rivets, bent grommets, and broken, cut or burned threads.
- nicks, cracks, distortion, excessive wear or corrosion of hardware (buckle, "D"-ring, etc.).

**NOTES**: If any evidence of wear, deterioration or impact loading 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. for clarification. Failure to carefully and completely inspect your equipment could result in serious injury or death.

**IMPACT LOADING INDICATOR NOTES**: Buckingham harnesses are equipped with an impact load indicator label that is designed to deploy upon arresting a fall. An impact load will tear the thread exposing this label making the text legible. If you can read the text, the harness has been impact loaded. If any evidence of wear, deterioration or impact loading 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. for clarification. Failure to carefully and completely inspect equipment could result in serious injury or death.



Impact Load Indicators shown before and after impact loading. Should impact loading be observed, immediately cease use, destroy the product, and replace it with new equipment.

#### Maintenance

- Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance.
- Nylon and polyester webbing should be cleaned with water and mild soap (a dish washing soap that removes grease (i.e. Dawn)) and be allowed to dry thoroughly without using excessive heat.

#### Rust on Harness Hardware

If through regular product inspection you note rust on hardware, the severity of the rust will determine whether the harness is deemed usable or unacceptable and recommended for removal from service. Below are examples of hardware rust exposure deemed acceptable for keeping the harness in service or unacceptable and recommended to cease use.

# Slight/Moderate (Acceptable): White Scale / Oxidation and Surface Rust







Slight



Moderate

Buckingham recommends cleaning hardware in this condition using an ultrafine Scotch Brite scouring pad (3M part number 14049 available at distributors such as Grainger), cut to approximately a 1" x 1" square, and with WD-40 Multi-Use Product or Hilco Lube lubricant cleaner (also available at retail distributors such as Grainger), scrub the areas that exhibit rust in a back and forth motion until all surface rust has been removed.

# Severe (Unacceptable): Pitting / Excessive Red Rust







<u>Severe</u>

Severe

Note: Hardware in this condition is recommended for removal from service.

\*Dee rings are not shown above but shall follow the same Rust on Harness Hardware criteria as shown above\*

Please contact your Buckingham Customer Service Representative at 800-937-2825 should you have any questions as to condition of the hardware or your product.

#### Storage:

Storage areas should be clean, dry and free of exposure to corrosive elements, fumes, etc. To aid in protecting the hardware from rusting, it is recommended that the hardware be treated with WD-40 Multi-Use Product or Hilco Lube lubricant cleaner at regular intervals.

NOTE: Ensure proper fit / size of product before use. This product **cannot** be returned unless it is in new / unused condition.

#### STATEMENT OF OBSOLESCENCE: INTERNATIONAL USERS:

Precise "useful life expectancy" or "shelf life" for this product is not specified, as the degree of use, conditions of use, and the degree of care and storage determines useful life. All users maintain responsibility to select proper equipment for the job, be properly trained in its use, and ensure all personnel support equipment passes inspection before each use. Upon evidence of defects, damage or deterioration, all equipment shall be removed from service immediately and tagged or marked as unusable or destroyed. Additionally, all equipment shall be inspected on a regular basis not to exceed one year by a Competent Person, as defined by OSHA/ANSI, to verify that the equipment is safe for use. In the event of any question or concern regarding the condition of such equipment, users shall remove the equipment from service for further inspection. All users must comply with OSHA/ANSI/ASTM standards prior to and in using such equipment. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

#### INTERNATIONAL USERS:

Notwithstanding the above, please know that certain international jurisdictions require manufacturers of equipment to provide customers with a maximum useful lifespan (sometimes referred to as a "Statement of Obsolescence"). To the extent required, Buckingham personal protective equipment manufactured from synthetic fiber materials including but not limited to items such as webbing and/or rope are subject to a maximum useful lifespan of ten (10) years from the date of manufacture. As stated above proper usage, storage, maintenance, and care impacts the useful lifespan of equipment. Extreme circumstances may require that product must be retired after only one use. This statement is made in conformance and compliance with BS EN 365:2004. International users must ensure that product inspections are completed by Competent Persons as defined by international standards including but not limited to British Standard ("BS"). If equipment fails any inspections, it must be immediately withdrawn from service and destroyed. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

#### OUR GUARANTEE: INTERNATIONAL USERS

We guarantee the equipment we manufacture to be free from defects in material and workmanship. We will repair any equipment deemed to be defective which is returned to us by the original purchaser. However, this guarantee is void if any product is changed or altered in any way, or if the product is used in a manner other than for which it is intended. This express guarantee supersedes all other expressed or implied guarantees, obligations or liabilities. There are no implied warranties of merchantability or fitness for a particular purpose and as such, all implied warranties are specifically disclaimed.

#### LIMITATION ON LIABILITY:

In no event will Buckingham or buyer be liable to the other for lost revenues, lost profits or any other indirect, consequential, special or punitive losses or damages, however caused, whether in action for breach of contract, strict liability, tort, or otherwise, even if advised of the possibility of such losses or damages. In no event will Buckingham's liability exceed the total amount paid by the buyer to Buckingham for the product or equipment giving rise to such claim(s).

Please see other terms and conditions relating to this product at https://buckinghammfg.com/terms-conditions/

#### REGISTRATION:

Before use of the product, ensure to register and confirm the product at <a href="https://www.buckinghammfg.com/register">www.buckinghammfg.com/register</a>.

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1-800-937-2825 www.buckinghammfg.com