

BUCKINGHAM MFG.

ERGOVATION® Series Sit Harness (PN 16906 – Series)

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.



Designed in Conjunction with

The Ergovation® is a revolutionary ergonomically designed sit harness tested to the ASTM F887 standard as well as CE standards EN 358, Standard for Work Positioning and EN 813, Standard for Sit Harnesses.

Notes: Ergovation® Saddle / Sit harness pictured with Omega suspension.

Hardware / material colors may vary from that shown below.

FRONT VIEW



ERGOVATION® Features Key

- 1) Ergonomic back pad with customizable lumbar support
- 2) Abdominal stabilization system
- 3) Enhanced closed cell foam padding along pelvic rim
- 4) Ergonomically designed leg pads
- 5) Load distributing polymers along pelvic region below work positioning “D” ring area
- 6) Aluminum Work Positioning “D” rings for increased comfort and decreased weight
- 7) Articulating suspension point
- 8) Load distributing tie in point with multiple tie in options and adjustable bridge
- 9) Quick connect waist strap buckle
- 10) Quick connect leg strap buckle
- 11) 2:1 Waist adjustment friction buckle
- 12) 1 ¾” Elastic webbing keepers
- 13) Adjustable suspension point for customizable balance.
- 14) Interchangeable lower suspension assembly
- 15) Hook and loop fastener attached load bearing webbing
- 16) 6 Gear loops
- 17) Snap webbing keepers
- 18) Leg strap retainer adjustment buckle
- 19) Carabiner attachment loop for chainsaw or retro harness attachment
- 20) Rear attachment buckle for retro harness attachment
- 21) Lumbar pocket closure

BACK VIEW



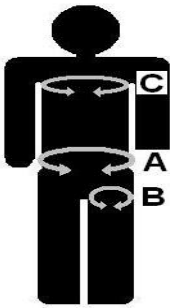
Sizing Information

The Ergovation® sit harness features a revolution in both fit and design. Due to the adjustable work positioning “D” rings, the load bearing webbing that hosts the “D” can be adjusted to fit a range of sizes from 24” waist all the way to a size 44” waist! What this means is that the user can adjust the “D” pieces to create a customizable fit never before seen. The back pad design is size specific to the end user, however it can accommodate a range of up to 3 different waist sizes per each back pad. (For example a size **Medium** back pad can accommodate a size 32in., 34in., and 36in. waist.) When measuring the waist, measure slightly below where pants are typically worn. (**Note: Be sure to allow for wearing of heavy clothing in colder months.**) To obtain a customized fit, the user should size the back pad to their own body. The wings of the back pad should wrap around the front of the hips by about 2-

3in. (5 cm - 7.6 cm) to allow for adequate adjustment of the work positioning “D” rings. If the wings of the back pad sit flush with or behind the hip area, the user should go up one size to allow for adequate adjustment and maximized comfort.

(Note: Addition of the lumbar support can affect sizing; place lumbar pad in back pad pocket before sizing to ensure fit is adequate)

Waist size (A)		Back Pad	Thigh size (B)	Chest Size (C)
Inches	Millimeters	Size	Universal	Universal
24-28"	610-711	1S	U	U
28-32"	711-813	S	U	U
32-36"	813-914	M	U	U
36-40"	914-1016	L	U	U
40-42"	1016-1067	X	U	U
42-44"	1067-1118	2X	U	U



Measurements for Sizing
(A) Waist Measurement
(B) Thigh Measurement
(C) Chest Measurement

SIZING - Fit is important to comfort. Be sure to allow for wear over heavy clothing. In order to obtain an optimum fit, the work positioning D-rings should be positioned slightly forward of the hip bones. Typical fits according to waist size are listed above.

Attachment Points



These attachment points are designed to hold the user in position at their work station (work positioning) allowing them to work with their hands free. These attachment points shall only be used to attach to a suspension or work positioning system, with maximum movement restriction distance of 23" (0.6m).

Work positioning “D” rings must ALWAYS be used together



These attachment points are for sit harnesses that are used in work positioning, suspension, and rope access systems when a ventral (low) attachment point is necessary.



Work positioning attachment points

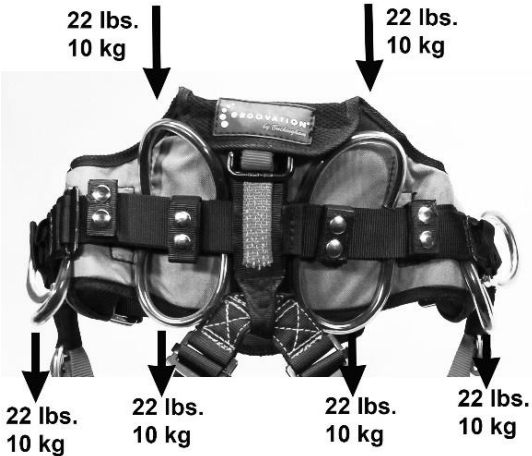


Suspension attachment points

Only use equipment compatible and rated for life support

Warning: The attachment points listed above are not designed for fall arrest use. It may be necessary to supplement work positioning or suspension systems collectively with fall arrest systems such as safety nets or personal fall arrest systems conforming to EN 363 or ANSI Z359.

Gear Loops and Equipment Storage



Gear loops must only be used to attach and support equipment. Designated slots in webbing accommodate accessory carabiners. Equipment like chainsaws should be attached to accessory carabiners supported by load bearing webbing

Warning: Never attach chainsaw or other heavy equipment to gear loops!

Field of Application

Belt for restraint and work positioning: ASTM F887, EN 358: (work positioning) and EN 813: (sit harness)

This product must not be loaded beyond its rated weight capacity, nor shall it be used for anything other than its designed and intended purpose.

WARNING: Activities involving the use of this equipment are extremely dangerous. The user of this equipment assumes all responsibility for their own actions.

Before using this equipment, the user must:

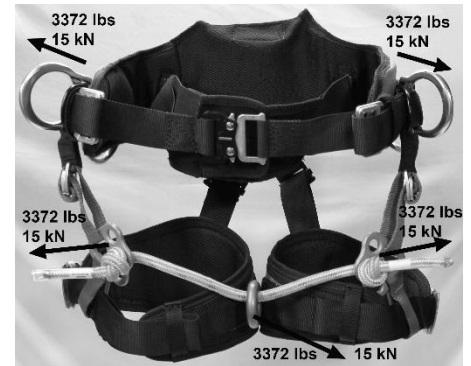
- Receive training to its proper use and specifications.
- Gain an understanding of all capabilities, uses, and (most importantly) limitations
- Understand and assume all risks involved.

Failure to comply with any of these warnings can result in serious injury or death!!

Responsibility

WARNING specific training **MUST** be received prior to use.

This product must only be used by competent individuals or individuals receiving training under the direct supervision of a competent individual. Gaining adequate experience in appropriate tools and techniques and protective methods is the users responsibility. The user personally assumes all damage, injury, or death that may occur as a direct or indirect result of incorrect use of this equipment. If the user is unable or unwilling to assume the responsibility and risk involved in the proper use and understanding of this equipment, then this equipment shall not be used.



Parts Layout

- A) Long "D" piece w/ suspension adjustment strap
- A1) Waist strap w/ quick connect buckle (male end)
- B) Short "D" piece w/ permanently attached slide bar buckle, and suspension adjustment strap
- B1) Waist strap w/ quick connect buckle (female end)
- C) Ergonomic back pad w/ lumbar pocket & permanently attached leg strap retainer anchor
- D) Leg strap w/ quick connect buckle (female end)
- E) Quick connect buckle frame (male end)
- F) Quick connect buckle frame adjuster bar
- G) Ergonomic semi rigid leg pads
- H) Leg strap retainers (man rated)
- I) Abdominal stabilizer loop side (long)
- J) Abdominal stabilizer hook side (short)
- K) 1/2" Lumbar support
- L) 1" Elastic web keepers
- M) Suspension Bridge Assembly
- N) 1 3/4" snap elastic web keepers (2 pack)

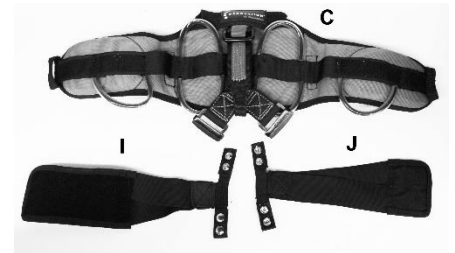


Note: Hardware may vary slightly from that shown.

Abdominal Stabilizer Assembly Instructions

Step 1

Gather the following components: Ergovation® back pad (C) with long loop (I) and short hook (J) pieces of Abdominal Stabilizer.



Step 2

Lie the Back Pad (C) so the inside is facing up. Insert the snap fastener ends of the Abdominal Stabilizer (I and J) through the designated slots in Back Pad (C). Ensure the loop side of Abdominal Stabilizer (I) is facing down and the hook side of Abdominal Stabilizer (J) is facing up on opposite wing of Back Pad (C).

Do not attach the snap fasteners around the hook fastener on outside of the Back Pad (C) at this time.



Step 3

Pull Abdominal Stabilizer (J) through elastic band on end of Back Pad (C) as shown. Repeat with loop side (I) on opposite wing of Back Pad.



If desired, place the lumbar support (K) into the lumbar pocket of the Ergonomic back pad (C) at this time.

Step 4

Final assembly of Abdominal Stabilization System should look like this.

NOTE: Loop side (I) ready to accept hook side (J). Notice loop side (I) is longer to prevent chafing of hook side (J) in the abdomen region.



Warning:

Abdominal Stabilization System is for support and comfort only. Do not over tension to increase snugness of fit!! If stabilizer is too loose or tight you may need to go up or down a size in the Back pad or loop side (short, medium or long) of the stabilizer. When attaching the elastic Abdominal Stabilization System: tighten the abdominal muscles by tightening the abdomen as if you were doing a crunch, then secure the hook and loop fastener. Be sure not to hold your breath when you fasten the hook and loop fastener as this will cause over-tightening. If abdominal stabilizer loses its elasticity over time replace with new stabilizer.

“D” Piece Assembly Instructions

Step 1

Place the Back Pad (C) around your waist and attach the hook and loop fastener of the Abdominal stabilizer.



Attach the loop fastener of the Short “D” Piece (B) to the hook fastener on the left side of the Back Pad (C). Align the Short “D” Piece so that the heel of the D-ring is slightly forward of the projection of your hip bone.



Attach the loop fastener of the Long “D” Piece (A) to the hook fastener on the other side of the Back Pad (C). Align the Long “D” Piece so that the heel of the D-ring is slightly forward of the projection of your hip bone.



Step 2

Remove the Back Pad and lie it face down on a flat surface.



Thread Long “D” Piece (A) through tail piece on Back Pad as shown.



Pull through the entire length of webbing from the Long “D” Piece (A) through the tail piece as shown.



Step 3

Attach the Long “D” Piece (A) to the Short “D” Piece (B) by threading the webbing from the Long “D” Piece (A) through the permanently attached slide bar buckle of the Short “D” Piece (B).

Note: Thread the webbing through the lower slot of the slide bar buckle first.

Notice the bar of the buckle is slid up to allow easy threading



Thread webbing back through top slot of the slide bar buckle to secure the Long and Short “D” Pieces together.



Step 4

Pull the excess webbing back through the slot in the tail piece of the Back Pad.

Once through the tail piece align the Long “D” Piece and fasten it back to itself by using the snap fasteners (if needed) as shown.



Waist Strap Attachment Instructions

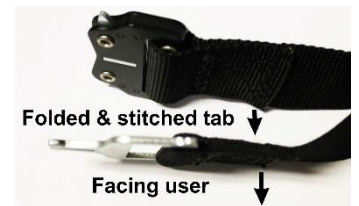
Step 1

Once the “D” Piece is threaded together, begin attachment of the waist straps. Determine your desired right or left-handed connection for the waist strap Buckle. For a right-handed user, attach the Waist Strap w/ male buckle (A1) to the Long “D” Piece strap (A) and the Waist Strap w female buckle (B1) to the Short “D” Piece strap (B). For a left-handed user, attach in reverse order; (A1) to the Short “D” Piece strap and (B1) to the Long “D” Piece strap.



Step 2

Connect waist straps as follows: Lie the Back Pad (C) inside down on a flat surface (as shown in step 1). Orient each of the Waist Straps so that the folded & stitched tab of the Quick Connect Waist Strap Buckle is facing down (tab towards the user when wearing).



Insert the Waist Strap Adjustment Buckle underneath the web loop at the wing end of Back Pad.



Angle the smaller of the two Waist Strap Adjustment Buckles and insert it through the backside of the larger Waist Strap Adjustment Buckle.



Pass the smaller buckle completely through the larger buckle so the smaller is lying flat on top of the larger.

Note: Be sure curves of Waist Adjustment Buckles both slope down when connected.



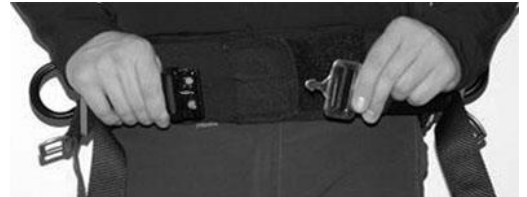
This creates the 2 to 1 ratio waist tensioning system. Repeat these steps for the opposite side of the waist strap.

Note: Ensure that both sides of quick connect buckle line up properly before waist assembly is secured and tensioned.

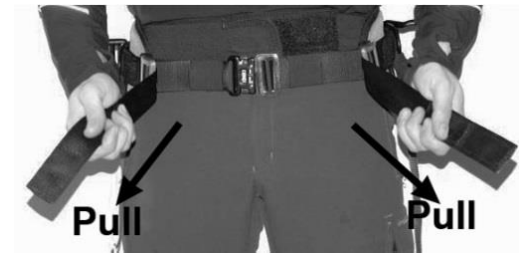


Step 3- Once assembled, place the Back Pad on your waist. To ensure proper fit:

1: Connect two halves of Quick Connect Waist Buckle for proper securement. Visually inspect that buckle is secured. Do not rely on only hearing the click. Look for both sides to be locked.



2: Pull on straps as shown until waist strap feels snug on waist. Be sure not to over tighten as this can cause discomfort on hips and waist.



Step 4

Once the waist straps are secured and properly tensioned, they can be threaded back through the slot of the work positioning "D" ring and secured in the waist strap keepers.



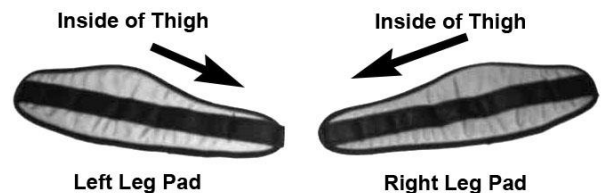
WARNING: NEVER CUT WAIST STRAP

ENDS.

Leg Strap Assembly

Step 1

Lay out leg pads (G) with the longer narrow side going to the inside of the thigh.



Step 2

Slide the leg strap under the web loops at each end of the leg pad and place the loop fastener side of the leg strap (D) down securely matching up with the hook fastener side of the leg pad (G).

Note: Be sure to orient leg pad (G) with long narrow portion going towards inside of thigh.

If you would like your leg strap buckle on the **OUTSIDE** of your thigh, set up as shown in attachment #1.

If you would like your leg strap buckle on the **INSIDE** of your thigh, set up as shown in attachment #2.



Step 3

Thread the leg strap through the male end of the Quick Connect Buckle Frame as follows:

- Insert slide bar (F) over the Quick Connect Buckle Frame (E).
- Push the slide bar to the rear of the frame creating a slot at the tab end of frame.
- Ensure the fold over of the leg strap is facing up. Insert the leg strap from the underside of the buckle and through the slot.
- Push the slide bar to the tab end of the frame, make a loop in the leg strap and insert it through the slot at the rear of the frame.
- Pull the tail of the leg strap to cinch the buckle tight to the strap.



Step 4

Place the leg pad with the narrow side towards the inside of the thigh and the curve going up towards the buttocks so that the long strap is to the inside of the thigh and the buckle is on the outside (this configuration is shown in Step 2 (Attachment #1). Use attachment #2 for the leg strap buckle connection on the inside of the thigh).



Step 5

Connect the buckle and feed the leg strap slack through buckle until Leg Strap is snug. Leg Straps are oversized for one size fits all.



During use, the tail end of the leg straps can be folded and secured in the elastic keepers attached to the leg pad.



Step 6 - Remove the leg pad and lay it face down on a flat surface.

Step 7 - Align the Leg Strap Retainer (H) with the web loop facing out and insert it down through the slot in Leg Pad and under the Leg Strap as shown.

Right leg pad shown



Right leg pad shown



Step 8 - Girth hitch the Leg Strap Retainer through the slot in Leg Pad and around the Leg Strap. Slide the elastic keepers onto the Leg Strap Retainers.



Step 9- Arrange the Back Pad and the Leg Straps with pads as shown.

Step 10 - Insert the webbing from the Leg Strap Retainer (H) into the adjustment buckle located on the Leg Strap Retainer Anchor (I) ensuring the buckle is threaded properly as shown.



The Back Pad with Leg Strap Retainer Anchor should appear as shown when Leg Strap Retainers are properly attached.



Final assembly of Back Pad with Leg Straps with retainers, Leg Pads, Permanently Attached Leg Strap Retainer Anchor and Snap Elastic Web keepers should appear as shown.

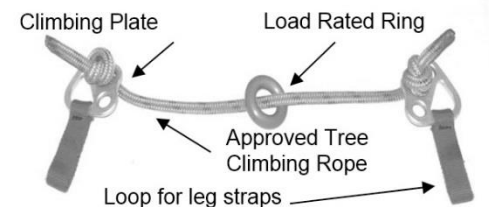
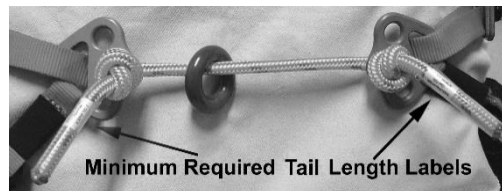


Suspension Bridge Assembly

Assembled View



Omega Suspension pictured and featured in assembly (additional suspension bridge options are available). Note: The Omega Suspension Bridge is supplied from the manufacturer with the minimum required tail length labels as shown below. These labels are not shown throughout this document for clarity purposes.



Step 1 - Insert the leg straps through the loops of webbing that are attached to the climbing plates as shown.



Step 2 - Secure Quick Connect Buckles of Leg Strap together.

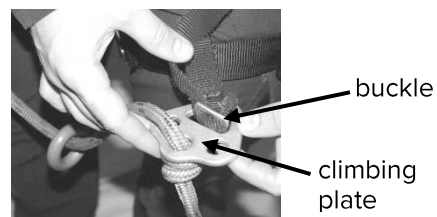
WARNING - Ensure to visually inspect that both sides of Quick Connect Buckle are secured, do not rely only on hearing the click of the buckle.



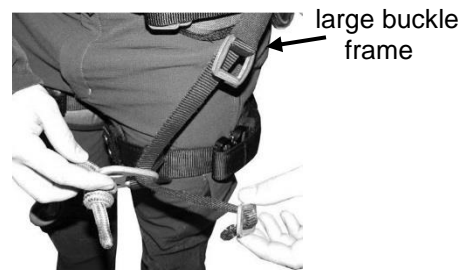
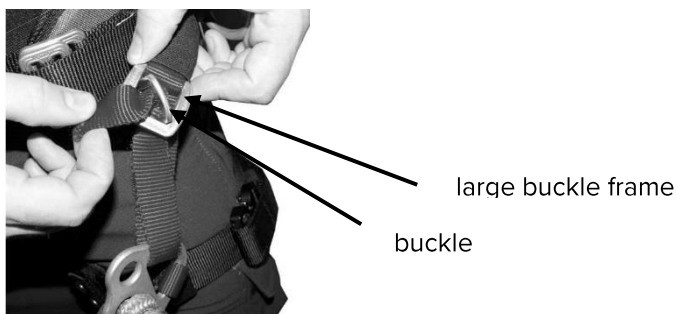
Step 3 - Once both leg straps are threaded through the loops and buckles are secured, begin the attachment of the Suspension Bridge Assembly to the waist strap as outlined in steps 4 through 9.



Step 4 - Insert buckle (which is attached to the small D ring of the waist strap) through the triangular slot in the climbing plate as shown.



Step 5 - With the buckle through the climbing plate, pull excess webbing as shown.



Step 6 - Turn the buckle at an angle and push from the underside out to fit through large buckle frame as shown. Repeat steps 4 – 6 for opposite side.

Step 7 - Use the webbing to adjust the Suspension Bridge Assembly up or down. A 3 to 1 ratio is created on the climbing plate of the Suspension Bridge Assembly and makes adjustment quick and easy.



Step 8 - Shorten suspension adjustment straps to keep yourself more upright.
To lower your center of balance, lengthen your suspension adjustment straps.

Step 9-Tuck excess webbing out of the way. Slide it underneath the elastic to keep it from interfering with the bridge of the suspension assembly.

Assembly Completed

Front View



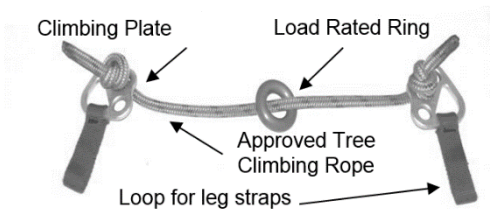
Left Side View



[Omega] Suspension Bridge Replacement / Assembly Instructions

Assembled View [Front]

Note: The Omega Suspension Bridge is supplied from the manufacturer with the minimum required tail length labels shown in step 5. These labels are not shown throughout this document for clarity purposes. To tie the termination knots in the Omega Suspension Bridge, follow the steps below.



Step 1- Wrap the working end towards the long side of the rope.

Step 2- Wrap the working end twice to form a round turn around the standing part of rope.



Step 3- Insert the working end back through the two crossed round turns.



Step 4- Once the termination knot is tied, dress and set the knot.



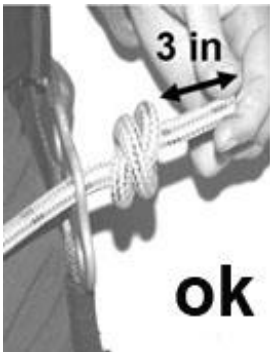
Step 5- Pull the knot tight until all slack is removed from the two turns.



WARNING: THREE INCHES MINIMUM OF TAIL IS REQUIRED EXITING THE TERMINATION KNOT.



Step 6 - Insert the terminated and tied portion of the rope into the climbing plate center hole. Insert or attach appropriate hardware onto the rope. Repeat steps 1 – 5 for opposite side.



Warning Ensure Suspension Bridge has adequate tail to prevent accidental slippage. Three inches minimum of tail exiting the termination knot is required as shown to the left. Ensure to cross turns and not have them parallel as shown in the photo to the right. The knot shown in the photo to the right is tied incorrectly.



Assembly Completed

FRONT VIEW



LEFT SIDE VIEW



Warnings

- Manufacturer's instructions shall be provided to the user of this product. If additional copy is needed, contact Buckingham Mfg. Co.
- Completely read, understand, and follow all instructions, warnings, and cautions pertaining to this and all associated equipment before use. Failure to do so could result in your serious injury or death.
- If bridge is frayed, melted, picked, hockled, cut, nicked, or unraveling, **REPLACE IMMEDIATELY!!!**
- Use only replacement Suspension Bridges (manufactured from approved tree climbing rope) supplied by Buckingham Mfg.
- Never use combinations of components or subsystems, or both, which may affect or interfere with the safe function of each other.
- This product is designed to be used by a person with a maximum weight of 310 lbs. when fully equipped. Weight when fully equipped relates to the individuals body weight in addition to that of his clothing, fall protection equipment, and all tools.
- Fall protection equipment, (i.e. fall arrest, work positioning belts, climbers, 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 arborist saddles are manufactured to meet applicable requirements of the ASTM F887, EN 358 / 813 standards and are intended for use as personal protection equipment only, not for towing or hoisting and when properly used, comply with the requirements of ANSI Z133-17.
- This equipment is intended for use by properly trained professionals only. Do not use without proper training.
- Before use the first time, the user should carry out a suspension test in a safe place to ensure that the equipment is the correct size, has sufficient adjustment and is of an acceptable comfort level for the intended use.
- Before use of the equipment, consideration should be given as to how any necessary rescue could be safely achieved.
- This equipment must only be used for the specific purpose for which it is designed and intended.
- This product is to be used for positioning and suspension only, **NOT FOR FALL ARREST UNLESS USED WITH OPTIONAL RETROFIT HARNESS**. Therefore, it may be necessary to supplement arrangements for work positioning / suspension with collective means (i.e. safety nets) or personal means of protection against falls from a height (i.e. fall arrest system).
- Destroy any and all equipment subjected to impact loading.
- Never work without independent fall arrest protection if there is danger of a fall.
- Keep equipment from coming into contact with abrasive surfaces, sharp edges, extreme temperatures, excessive ultraviolet rays and chemical agents, moving machinery, electrical hazards, and hazardous atmospheres. Exposure to these elements may have a detrimental effect on the integrity of the equipment. Sharp and abrasive surfaces may include but not be limited to (sheet metal, steel, concrete, block, stone, laminated materials etc.)
- Always visually check that all buckles are properly closed before use. (If making a connection to a point that cannot be seen by the wearer, either ensure the connection is made before donning the equipment or the connection is made and checked for security by a second person).
- Attach only connecting devices meeting standards/regulations for intended use for positioning and suspension to 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 or suspension.
- The rear loop centered at the top of the back pad on Buckingham arborist saddles is not to be used for belay, suspension or work positioning due to the potential of the user being inverted in the event of a fall.
- As outlined by OSHA 1926.502 (e)(2) positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 lbf. (13.3 kN), whichever is greater versus fall arrest anchor points which must support a minimum of 5,000 lbf. (22.2 kN) per attached worker and be Independent of worker support.
- As a minimum, the materials used in the manufacture of this product are acceptable for use under all normal environmental conditions tolerable to humans.
- Always visually check that each snap hook freely engages D-ring or anchor point and keeper is completely closed with each use. **Never** rely solely on the feel or sound of a snap hook engaging. (If making a connection to a point that cannot be seen by the wearer, either: Ensure the connection is made before donning the equipment or the connection is made and checked for security by a second person).
- Before each use check that: 1) fabric or belt strap is free of burns, cuts, broken stitches or excessive wear, 2) rivets are not bent, loose or missing, 3) buckles and D-rings are not distorted, cracked and function properly, 4) if there is a tongue buckle, that the tongue does not bind on the buckle and buckle holes are not damaged. Always remove from service, destroy and discard belt or harness if it fails inspection.
- Always use locking snap hooks or locking carabiners as outlined in the ANSI Z133-17 standards for suspension, work positioning and fall arrest.
- When in the work position, 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 D-rings and make it very susceptible to rollout.
- During use, all fastening and adjusting elements must be regularly checked to ensure adjustment and closure.
- Never attach multiple snap hooks to a D-ring unless they are of the locking type and designed for such attachment.
- Never disable locking keeper on snap hook or carabiner.

- Never punch additional holes in or alter any belt or harness in any way.
- Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user.
- Employer - instruct your employees as to proper use, warnings and cautions before use of this equipment.

Additional Instructions / Warnings for Suspension Bridge

The Rope Suspension Bridge attached to this saddle is designed to be replaced by the user at regular intervals. This interval should be dictated by the amount of use the product receives rather than a set time frame. Therefore, the manufacturer does not place a time limit on replacement of the suspension bridge. Due to the rigorous strain the Rope Suspension Bridge endures, it should be replaced at the earliest signs of wear. Suspension bridge inspection is extremely important and must be performed prior to each use. This inspection should include but not be limited to: webbing and rope cuts, nicks, tears, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, cracks, charring, broken, fraying or unraveling fibers, loose stitching chemical or physical exposure.

Failure to regularly inspect and replace the Rope Suspension Bridge could result in injury or death due to Suspension Bridge failure. Note: Only authorized replacement parts from Buckingham Mfg. should be used on this product. The use of unauthorized replacement parts will void Buckingham Mfg's Warranty.

Buckingham's primary concern is to provide a quality product to its customers to enable them to carry out their profession in a safe manner. However, we always require our customer's assistance in proper equipment operation, inspection and maintenance.

Equipment Inspection

Prior to each use: Carefully inspect this equipment for indications of wear or deterioration. Inspection should include, but not be limited to the following:

- webbing cuts, kinks, abrasions, burns, excessive swelling, excessive wear, discoloration, cracks, charring.
broken fibers, loose cut, or missing 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.
- buckles do not bind and all buckles function properly.
- nicks, cracks, distortion or corrosion of hardware (buckle, D-ring, etc.)

During each use: It is important to regularly inspect the condition and function of the equipment. Check the equipment's connection with other components in the system and be sure they are oriented, aligned, and functioning properly.

If equipment is compromised: 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. (1-800-937-2825) for clarification.

Failure to carefully and completely inspect your equipment could result in serious injury or death!!!

Properties of Arborist saddle Materials

Material	Effect of Heat	Effect of Acids & Alkalis	Effect of Bleaches & Solvents	Resistance to Mildew, Aging, Sunlight, Abrasion
Polyester	Sticks at 440 to 445° F. Melts at 482° F.	Good resistance to most mineral acids. Dissolves with partial decomposition in concentrated solution of sulfuric acids. Good resistance to weak alkalis. Moderate resistance to strong alkalis at room temperature. Disintegrates in strong alkalis at boil.	Excellent resistance to bleaches & other oxidizing agents. Generally insoluble except in some phenolic compounds.	Not weakened by mildew. Excellent resistance to aging & abrasion. Prolonged exposure to sunlight causes some strength loss.
Nylon 6	Melts at 419 to 430° F. Slight discoloration at 300° F when held for 5 hr. Decomposes at 600 to 730° F.	Strong oxidizing agents & mineral acids cause degradation. Others cause loss in tenacity & elongation. Resists weak acids. Soluble in formic & sulfuric acids. Hydrolyzed by strong acids at elevated temperatures. Substantially inert in alkalis.	Can be bleached in most bleaching solutions. Generally insoluble in organic solvents. Soluble in some phenolic compounds.	Excellent resistance to mildew, aging & abrasion. Prolonged exposure to sunlight causes some degradation.

CLEANING, STORAGE and TRANSPORTATION

Proper maintenance, storage and transportation of your equipment will prolong its useful life and contribute toward its performance. Nylon and polyester should be cleaned and disinfected with water and mild soap and be allowed to air dry thoroughly without using excessive heat. Your equipment should be stored and transported so that it does not come into contact with moisture, ultra violet rays, extreme temperatures or chemical agents. Warnings pertaining to cleaning, storage and transportation should be strictly adhered to.

Rust on Saddle Hardware [hardware styles may vary]

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

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

Single Slot



Slight

2 Slot



Slight

QC buckle



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 BuckLube™, 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

Single Slot



Severe

2 Slot



Severe

QC buckle



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 saddle 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.

NOTE: Ensure proper fit / size of product prior to use. This product CAN NOT be returned unless it is in new / unused condition!

Reference Letter See:
"Parts Layout"

Ergovation Part

Replacement Part Number

A & B	Long "D" piece w/ suspension adjustment strap & Short "D" piece w/ permanently attached slide bar buckle, and suspension adjustment strap	16906C1
A1 & B1	Waist strap w/ quick connect buckle (male end) & Waist strap w/ quick connect buckle (female end)	16906C15
C	Ergonomic back pad w/ lumbar pocket & permanently attached leg strap retainer anchor	16906C16 SIZE
D	Leg strap w/ quick connect buckle (female end)	16906C17
E & F	Quick connect buckle frame (male end) & Quick connect buckle frame adjuster bar	16906C18
G	Ergonomic semi rigid leg pads	16906C19
H	Leg strap retainers (man rated)	16906C6
I & J	Abdominal stabilizer loop side (long) & Abdominal stabilizer hook side (short)	16906C8-SIZE
K	½" Lumbar support	16906C9
L	1" Elastic web keepers (10 pack)	16906C11
M	Suspension Bridge Assembly	WE6
N	1.75" Elastic Web Keepers (2 pack)	1300010



Patented, for more information, visit BuckinghamMFG.com/Patents.

STATEMENT of OBSOLESCENCE:

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:

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 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 www.buckinghammfg.com/register.

BUCKINGHAM MFG.
1-11 Travis Ave.
BINGHAMTON, NY
1-800-937-2825