

BUCKINGHAM MFG.

488 / 490 SERIES INNER ROPE STRAP REPLACEMENT INSTRUCTIONS

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.

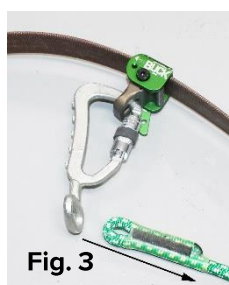
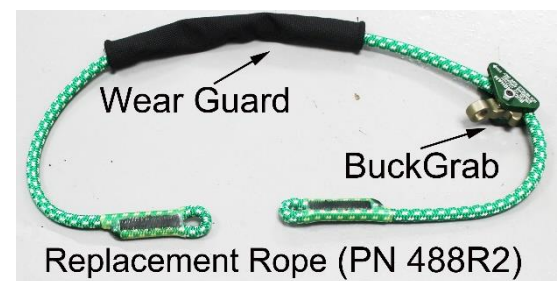
NOTES:

- The 488 series Inner Rope / Straps can be used with both the SuperSqueeze and EZSqueeze series and are supplied in various configurations, (connecting hardware with carabiners or snaphooks, rope types, rope only or rope with BuckGrab attached).
- The BuckGrab has been supplied with two styles of bolt locking systems, a locking split ring (old style) and with a centerlock nut with a peened bolt (new style).
- These inner rope straps must only be used with the Wood Pole Fall Restriction Device (WPFRD) assemblies).
- Rope types, hardware, options and colors may vary from those shown below.

CARABINER STYLE INNER ROPE CHANGE OUT (REPLACEMENT SUPPLIED WITH A BUCKGRAB):

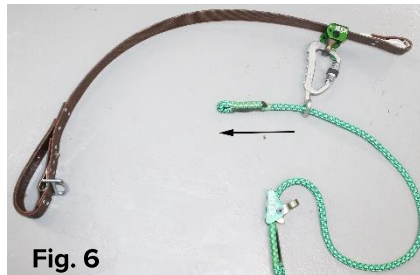
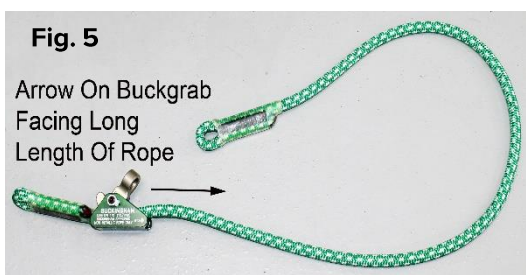
REMOVAL OF CARABINER STYLE INNER STRAP

1. Remove Locking Carabiner from the rope at the D-ring end (Fig. 1).
2. Slide the rope out of the D-ring (Fig. 2).
3. Remove the Wear Guard from the rope if equipped (not shown).
4. Slide the rope out through the Stirrup of the Serrated Rotosnap (Fig. 3).
5. Remove the other Locking Carabiner from the BuckGrab and retain the carabiners for reassembly.
6. Discard the old Inner Rope / Strap and the BuckGrab.
7. The Brown Outer Strap is now separated from the Inner Rope / Strap (Fig. 4)



ATTACHMENT OF CARABINER STYLE INNER STRAP

1. Remove the Wear Guard from the rope if it was supplied with one.
2. Pull the BuckGrab all the way to the end of the rope so that the arrow on the BuckGrab is pointing towards the long length of the rope. (Fig. 5).
3. Slide the end of the rope opposite of the BuckGrab through the Stirrup of the Serrated Rotosnap (Fig. 6).
4. Insert the rope through the Wear Guard if it was supplied with one.



5. Slide the end of the rope opposite the BuckGrab through the D-ring (Fig. 7 & 8).

6. Attach one of the carabiners to the eye in the rope end opposite of the BuckGrab and the other carabiner to the eye of the BuckGrab Cam (Fig. 9). Ensure the gates of the carabiners are facing outward and the arrows on the WebGrab and BuckGrab are facing inward (towards the pole when in use).



NOTES:

- When the Inner Rope / Strap is assembled to the Brown Outer Strap, ensure the rope is properly fed through the BuckGrab, Stirrup of Serrated Rotosnap, and the Brown Outer Strap D-ring-ring and that the arrows on the WebGrab and BuckGrab are facing inward (towards the pole).
- Once completely assembled the Wood Pole Fall Protection Device (WPFRD) should appear as shown in Figure 9.
- Be sure to perform a trial test while standing on the ground to ensure the is functioning properly prior to climbing.
- These Replacement Inner Rope / Straps must only be used with the (WPFRD) assemblies.

CARABINER STYLE INNER ROPE CHANGE OUT (REPLACEMENT SUPPLIED WITHOUT A BUCKGRAB):

REMOVAL OF CARABINER STYLE INNER STRAP

1. Remove Locking Carabiner from the rope at the D-ring end (Fig. 10).
2. Slide the rope out of the D-ring (Fig. 11).
3. Remove the Wear Guard from the rope if equipped (not shown).
4. Slide the rope out through the Stirrup of the Serrated Rotosnap (Fig. 12).
5. Remove the other Locking Carabiner from the BuckGrab and retain the carabiners for reassembly.
6. The Brown Outer Strap is now separated from the Inner Rope / Strap (Fig. 13)



BUCKGRAB REMOVAL [Split Ring Style]

NOTE:

- Some earlier model (WPFRD) were manufactured with BuckGrabs using a Nyloc nut, drilled shoulder bolt and a split ring to secure the nut to bolt (Fig 14). Later models were manufactured with a centerlock nut torqued to the bolt and the bolt end being peened to secure the nut to bolt (Fig.15).



Fig. 14 - Split Ring Style



Fig. 15 - Peened Bolt Style

- If removing a split ring style BuckGrab follow steps 7A_.
- If removing a peened bolt style BuckGrab follow steps 7B_.

7A1. Remove split ring from shoulder bolt (Fig. 16)

7A2. Remove nyloc nut from shoulder bolt using a 3/16" Allen wrench and a 1/2" wrench (Fig. 17)

7A3. Remove the shoulder bolt from the cam and the body of the BuckGrab, leaving the cam and spring in the body (Fig. 18 - 19).

7A4. Remove the cam lever and the cam spring from the BuckGrab body. Discard used spring, shoulder bolt, nyloc nut and split ring (Fig. 20).

7A5. Discard the old Inner Rope / Strap.



Fig. 16



Fig. 17



Fig. 18



Fig. 19



Fig. 20

BUCKGRAB REMOVAL [Peened Bolt Style]

7B1. Remove the centerlock nut from the shoulder bolt by using a 3/16" Allen wrench and a 1/2" wrench. Due to the bolt being peened, the nut will be difficult to turn. The use of a vice to hold the centerlock nut and a long lever over the allen wrench will ease nut removal (Fig. 21)

7B2. Remove the shoulder bolt from the cam and the body of the BuckGrab (Fig. 22 & 23).

7B3. Remove the cam lever and the cam spring from the BuckGrab body (Fig. 24). Discard the used shoulder bolt, centerlock nut and the old Inner Rope / Strap.



Fig. 21

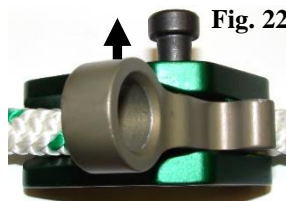


Fig. 22



Fig. 23



Fig. 24

BUCKGRAB ATTACHMENT [Split Ring Style]

- If attaching a split ring style BuckGrab follow steps 8A_.
- If attaching a peened bolt style BuckGrab follow steps 8B_.

8A1. Insert the new Inner Rope / Strap into the groove of the BuckGrab body. The arrow shown on the BuckGrab (Fig. 25) must point away from the stitched eyes of the new Inner Rope / Strap, so that when mounted around a pole, the arrows point towards the pole.

8A2. Place the spring into the cam spring slot. Ensure the straight leg of the spring is inserted in its designated slot. The 90° bent tab portion of the spring must point outward, away from the cam (Fig. 26).

8A3. The cam lever with spring must be inserted into the body of the BuckGrab on top of the rope. Begin by ensuring the spring 90° bent tab is started into the small hole in the side of the BuckGrab body and then rotate the cam lever inward (Fig. 27).

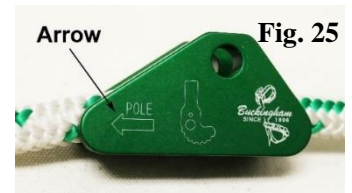


Fig. 25

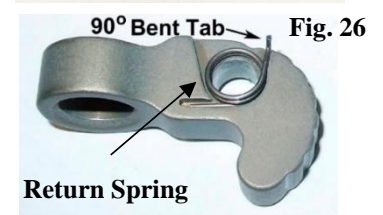
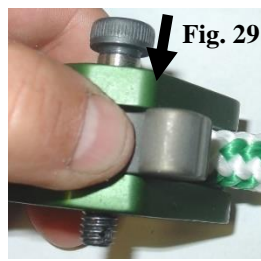
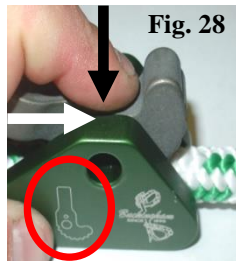
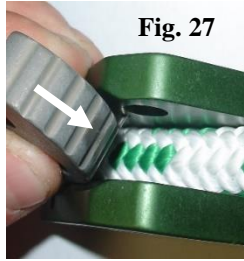


Fig. 26

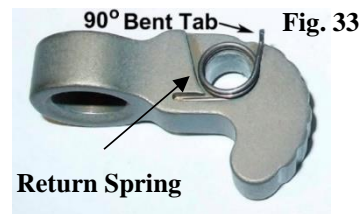
Return Spring

- 8A4. Align the holes of the cam lever and the body of the BuckGrab by pushing the cam lever in the directions shown (Fig. 28). The cam lever must be mounted in the same direction as shown in the sketch on the side of the BuckGrab (Fig. 28).
- 8A5. From either side of the body, insert the pre drilled shoulder bolt completely through the body and cam lever (Fig. 29).
- 8A6. Thread the nyloc nut onto the shoulder bolt. Using a 3/16" Allen wrench and 1/2" wrench, tighten the nyloc nut until it comes in contact with the shoulder of the bolt. Do not over tighten the nut (20 in. lbs. max.)
- 8A7. Insert the Split Ring entirely through the predrilled hole in the Shoulder Bolt.
- 8A8. The fully assembled BuckGrab should appear as shown in Fig. 30.
- 8A9. Check the BuckGrab by pulling on the eye of the cam lever ensuring that the device grips the rope in the required direction and that the spring has adequate tension to ensure the cam lever returns to a position so that the cam teeth make contact with the rope.
- 8A10. Once the BuckGrab is properly attached and functioning on the replacement Rope / Strap, attach the Inner Rope / Strap to the Brown Outer Strap as outlined in the "ATTACHMENT OF CARABINER STYLE INNER STRAP" section above.

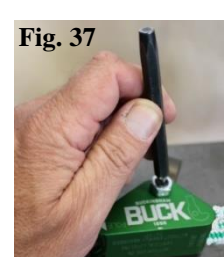
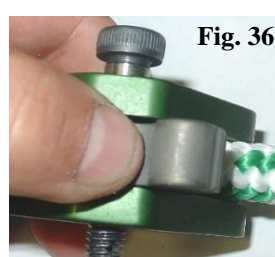
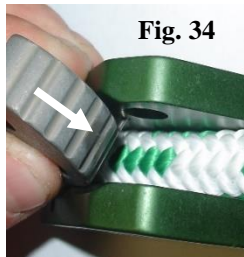


BUCKGRAB ATTACHMENT (Peened Bolt Style)

- 8B1. PN 5004BKIT that includes a new shoulder bolt, centerlock nut and single use tube of Loctite must be used for this attachment (Fig 31).
- 8B2. Insert the new Inner Rope / Strap into the groove of the BuckGrab body. The arrow shown on the BuckGrab (Fig. 32) must point away from the stitched eyes of the new Inner Rope / Strap, so that when mounted around a pole, the arrows point towards the pole.



- 8B3. Place the spring into the cam spring slot. Ensure the straight leg of the spring is inserted in its designated slot. The 90° bent tab portion of the spring must point outward, away from the cam (Fig. 33).
- 8B4. The cam lever with spring must be inserted into the body of the BuckGrab on top of the rope. Begin by ensuring the spring 90° bent tab is started into the small hole in the side of the BuckGrab body and then rotate the cam lever inward (Fig. 34).
- 8B5. Align the holes of the cam lever and the body of the BuckGrab by pushing the cam lever in the directions shown (Fig. 35). The cam lever must be mounted in the same direction as shown in the sketch on the side of the BuckGrab (Fig. 35).
- 8B6. From either side of the body, insert the shoulder bolt completely through the body and cam lever (Fig. 36).
- 8B7. Add a small amount of Loctite® 242 to the shoulder bolt threads and thread the centerlock nut onto the shoulder bolt. Using a 3/16" Allen wrench and 1/2" wrench, tighten the centerlock nut until it comes in contact with the shoulder of the bolt. Using a torque wrench, torque the nut to a minimum of 50 in. lbs. and 75 in. lbs. max.



NOTE: The Supplied centerlock Nut is a type of locknut designed to resist loosening under vibrations. As an added precautionary measure, Buckingham suggests that once the nut is properly tightened, the end of the shoulder bolt be peened using a centerpunch and hammer. Fig. 37 & 38.

8B8. The fully assembled BuckGrab should appear as shown in Fig. 39.

8B9. Check the BuckGrab by pulling on the eye of the cam lever ensuring that the device grips the rope in the required direction and that the spring has adequate tension to ensure the cam lever returns to a position so that the cam teeth make contact with the rope.

8B10. Once the BuckGrab is properly attached and functioning on the replacement Rope / Strap, attach the Inner Rope / Strap to the Brown Outer Strap as outlined in the “ATTACHMENT OF CARABINER STYLE INNER STRAP” section above.



SNAPHOOK STYLE INNER ROPE CHANGE OUT (REPLACEMENT SUPPLIED WITH A BUCKGRAB PN 488R2Q1):

REMOVAL OF SNAPHOOK STYLE INNER STRAP

1. Disconnect the Serrated Rotosnap from the Brown Outer Strap WebGrab.
2. Carefully cut through the old Inner Rope/ Strap and pull the two halves through the Brown Outer Strap D-ring.
3. Discard the two halves of the old Inner Rope / Strap, including the BuckGrab, Serrated Rotosnap and both of the Locking Snaphooks.
4. The Brown Outer Strap is now separated from the Inner Rope / Strap (Fig. 40)



ATTACHMENT OF SNAPHOOK STYLE INNER STRAP

1. Remove the Wear Guard from the rope if it was supplied with one.
2. Slide the end of the rope opposite of the Locking Snaphook through the D-ring of the Brown Outer Strap (Fig. 41).
3. Insert the rope through the Wear Guard if it was supplied with one (Fig. 42).
4. Attach the new Serrated Rotosnap through the eye of the WebGrab Cam so that the serrations of the Serrated Rotosnap are facing the Brown Outer Strap (Fig. 43).
5. Slide the end of the rope opposite of the Locking Snaphook through the Stirrup of the Serrated Rotosnap (Fig. 44).
6. Attach the BuckGrab to the end of the rope opposite of the Locking Snaphook that has been passed through the Stirrup of the Serrated Rotosnap (Fig. 45). Ensure the arrow on the BuckGrab is facing the Serrated Rotosnap.
7. Assemble the BuckGrab to the rope as outlined in steps 8B1 through 8B9 of the “BUCKGRAB ATTACHMENT (Peened Bolt Style)” section above.



NOTES:

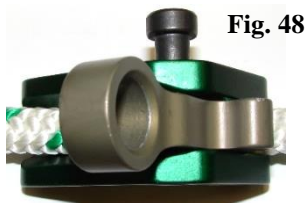
- When the Inner Rope / Strap is assembled to the Brown Outer Strap, ensure the rope is properly fed through the BuckGrab, Stirrup of Serrated Rotosnap, and the Brown Outer Strap D-ring-ring and that the arrows on the WebGrab and BuckGrab are facing inward (towards the pole).
- Once completely assembled the Wood Pole Fall Protection Device (WPFRD) should appear as shown in Figure 46.
- Be sure to perform a trial test while standing on the ground to ensure the (WPFRD) is functioning properly prior to climbing.
- These Replacement Inner Rope / Straps must only be used with the (WPFRD) assemblies.



SNAPHOOK STYLE INNER ROPE CHANGE OUT (REPLACEMENT SUPPLIED WITHOUT A BUCKGRAB PN 488R2Q1):

REMOVAL OF SNAPHOOK STYLE INNER STRAP

1. Remove the BuckGrab's centerlock nut from the shoulder bolt by using a 3/16" Allen wrench and a 1/2" wrench. Due to the bolt being peened, the nut will be difficult to turn. The use of a vice to hold the centerlock nut and a long lever over the allen wrench will ease nut removal (Fig. 47)
2. Remove the shoulder bolt from the cam and the body of the BuckGrab and discard the used shoulder bolt and centerlock nut. (Fig. 48 & 49).
3. Remove the cam lever with attached Locking Snaphook and the cam spring from the BuckGrab body, remove the body from the rope and retain all for reassembly (Fig. 50).



4. Slide the end of the rope opposite of the Locking Snaphook out through the Stirrup of the Serrated Rotosnap (Fig. 51).
5. Remove the Wear Guard from the rope if it was supplied with one.
6. Slide end of the rope opposite of the Locking Snaphook out of the D-ring of the Brown Outer Strap (Fig. 52).
7. Discard the old Inner Rope / Strap and the Locking Snaphook that is connected to it.
8. The Brown Outer Strap is now separated from the Inner Rope / Strap (Fig. 53)



Fig. 51



Fig. 52



Fig. 53

ATTACHMENT OF SNAPHOOK STYLE INNER STRAP

8. Remove the Wear Guard from the rope if it was supplied with one.
9. Slide the end of the rope opposite of the Locking Snaphook through the D-ring of the Outer Brown Strap (Fig. 54).
10. Insert the rope through the Wear Guard if it was supplied with one (Fig. 55).
11. Slide the end of the rope opposite of the Locking Snaphook through the Stirrup of the Serrated Rotosnap (Fig. 56).
12. Attach the BuckGrab to the end of the rope opposite of the Locking Snaphook that has been passed through the Stirrup of the Serrated Rotosnap (Fig. 57). Ensure the arrow on the BuckGrab is facing the Serrated Rotosnap.
13. Assemble the BuckGrab to the rope as outlined in steps 8B1 through 8B9 of the "BUCKGRAB ATTACHMENT (Peened Bolt Style)" section above



Fig. 54



Fig. 55



Fig. 56



Fig. 57

NOTES:

- When the Inner Rope / Strap is assembled to the Brown Outer Strap, ensure the rope is properly fed through the BuckGrab, Stirrup of Serrated Rotosnap, and the Brown Outer Strap D-ring-ring and that the arrows on the WebGrab and BuckGrab are facing inward (towards the pole).
- Once completely assembled the Wood Pole Fall Protection Device (WPFRD) should appear as shown in Figure 58.
- Be sure to perform a trial test while standing on the ground to ensure the (WPFRD) is functioning properly prior to climbing.
- These Replacement Inner Rope / Straps must only be used with the (WPFRD) assemblies.



Fig. 58

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 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 www.buckinghammfg.com/register.

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

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