BUCKINGHAM GAFF & CLIMBER INFORMATION

Strength & Reliability

- Buckingham climber leg irons are forged from selected high strength grades of steel and titanium. Gaffs are also forged from a quality steel.
- Before, during and after manufacturing Buckingham climbers from every production lot undergo rigorous testing. They are subjected to physical abuse far beyond that encountered in normal use.
- Leg irons are bent 180° around a two inch diameter mandrel. Gaff tips are bent 3/4" beyond normal position. Tested climbers are then examined by magnaflux to check for cracks.
- Gaff security is checked by a severe impact drop test and then reexamined for loose gaffs.
- Hardness of steel in both leg irons and gaffs are rechecked through Rockwell readings.
- Every gaff is magnaflux inspected to ensure there are no flaws in the forging.
- Upon completion, every climber is reviewed to insure the gaff angle and the contour meets very tight tolerances.
- Once the gaff has a final grind, it is inspected to make sure width, thickness, length, and radius meet the specified requirements.
- Random sample climbers are tested to 1,000,000 cycles to simulate a lineman climbing a pole.
- Buckingham climbers are tested for persons with weight up to 350 lbs when fully equipped.

Proper Fit & Comfort

Buckingham believes that proper fit and comfort affect a person's ability to climb. An ill-fitting climber distracts the wearer. This is why we offer the industry's widest choice of climber styles and features.

Tape Measuring

How to Size Your Climber

Proper fit is important to your comfort and safety. Correct climber length is normally measured from the boot sole under the instep to a point 1/2" below the bone projection just below the knee joint. There are long sleeves available and they are generally preferred by people over 6'2".

NOTE: Pull your pant cuffs up slightly just below the knee before fastening the leg strap... it provides greater mobility to climb.

How to Order Climbers

The proper fit of a climber requires the leg iron, with pad attached, to extend from the instep to about ½" below the bottom of the inside projection of the knee joint.

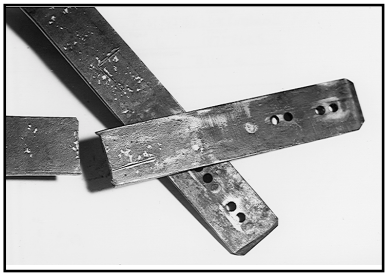
Climber adjustment varies based on style of climber and the sleeve length. Standard length sleeves 9204 are included unless long sleeves are requested by adding the suffix 'L' to the product number. Standard sleeves permit leg length adjustment from 16 1/4" to 18 3/4" for standard width stirrup climbers [40cm to 48cm] using two fasteners, 14 1/2" to 17 1/4" [37cm to 42cm] with narrow stirrup style climbers.

Long sleeves 9202 may be ordered at a slight extra cost. These permit length adjustment from 19 1/4" to 21 3/4" [48cm to 55cm] for standard width stirrup climbers, 17 1/4" to 20 1/4" [37cm to 51cm] with narrow stirrup climbers. Add suffix 'L' to the climber catalog number for long sleeves.

Daily Climber Inspection Requirements

- Visible Cracks - usually a fine jagged line
- Cuts or marks in the steel - create stress risers causing the climber to break at that point
- Make sure loop on climber sleeve is secure
- Make sure footstrap ring or loop is secured to climber stirrup
- Use two fasteners to secure the sleeve to the climber
- Inspect climber straps for cuts and excessive wear
- Make sure the pad loops are secure and free of cuts and are not worn thin
- Inspect climber stirrup to be sure it's not worn too thin

IF ANY OF THESE CONDITIONS EXIST, DISCONTINUE USE IMMEDIATELY.



This is what happened to a climber with a stress riser. Someone chiseled their initial 'L' into the climber shank. It eventually broke in the spot the shank was initialed.

RULE OF THUMB - REPLACEABLE GAFF CLIMBERS SHOULD BE CHANGED OUT ONLY ONCE AFTER THE ORIGINAL SET WEARS OUT THROUGH NORMAL USE.

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www.buckinghammfg.com

Proper Gaff Sharpening Procedure

A climber gaff improperly sharpened may be as dangerous as a gaff not sharpened at all. The gaff radius tip is critical for gaff penetration. A needle point gaff could result in breakage. Follow the instructions to be sure of proper maintenance and have a qualified person inspect your work.

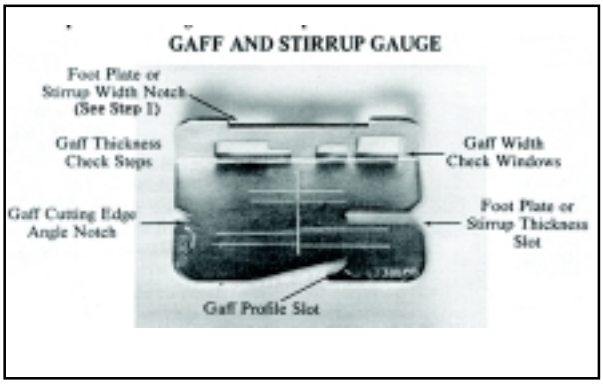
1. Place climber in a clamp with blocks on each side to protect the climber.

2. File gaff from heel to tip in a smooth over and down motion. Hint - color in gaff with black marker to ensure you are taking material off evenly. Never file across or against the grain as it creates stress risers which may cause gaff to break. Never file the beehive of gaff.

3. Slot marked “Correct” on the gaff gauge should be your GUIDE to proper shaping of the gaff tip.

4. Never use a pole gaff shorter than 1 1/4" long. Never use a tree gaff shorter than 2 1/4" long.

5. Check gaff width and thickness at the 1/2" and 1" windows as illustrated in the instructions included with the gaff gauge.



6. Check thickness of stirrup to ensure it is thick enough to support your weight.

How To Perform the Pole Cut Out Test

(A) Place the climber on the leg, holding the sleeve with the hand, palm facing the pole. With the leg at about a 30° angle to the pole and the foot about 12 inches off the ground, lightly jab the gaff into the pole to a distance of approximately 1/4".

(B) Keeping enough pressure on the stirrup to keep the gaff in the pole but not so much as to cause the gaff to penetrate any deeper, push the climber and the hand toward the pole by moving the knee until the strap loop of the sleeve is against the pole.

(C) Making certain that the strap loop is held against the pole with pressure from the leg, gradually exert full pressure of the foot straight down on the stirrup without raising the other foot off the ground so as to maintain balance if the gaff does not hold.

(D) The point of the gaff shall cut into the wood and hold. The pole surface cut shall not be longer than 2 inches, measured from the point of gaff entry into the pole to the bottom of the cut on the pole surface.

INSPECTION IS YOUR RESPONSIBILITY!

Rule of thumb - Replaceable Gaff - Climbers should be changed out only once if original set wears out through normal use.

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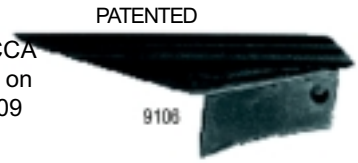
Buckingham Replacement Gaffs

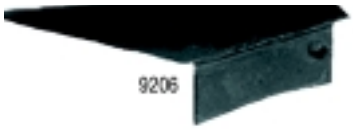
The Buckingham replaceable gaff climber came to being in WWI so the servicemen could climb both trees and poles, and if gaffs became damaged it was easier to carry spare gaffs rather than a whole set of climbers. **We offer two styles of replaceable gaffs: we continue to supply the original with driv-lok pin attachment for those types of climbers still in the field** and the screw style, available on our titanium and steel replaceable climbers.

Pin Style Steel Replaceable Gaffs

9106: CCA pole gaff designed to penetrate hard CCA poles with ease. Supplied on steel 9109 (offset) and 9009 (straight).



9206: pole gaffs as supplied on pole climbers 9209 (straight) and 9409 (offset).



9306: tree gaffs as supplied on tree climber 9309 (straight), and 9509 (offset).

Screw Style Replaceable Gaffs forTitanium and Steel Climbers

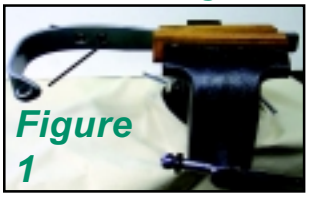
T9106A: 16 degree angled replaceable CCA pole gaffs designed to penetrate hard CCA poles with ease. To be used with all T, TB & SB climbers.

T9206A: 16 degree angled replaceable pole gaffs. To be used with all T, TB & SB climbers.

TB9306: tree gaffs as supplied on all titanium and steel tree climbers.

NOTE: To order replacement screws order 11T (4/pkg.); To order replacement pins order 11 (2/pkg.)

How to Change Screw Style Gaffs on Buckingham Climbers



GAFF REMOVAL

1. Secure the climber such that the heads of the hex head fasteners are facing you (Buckingham Mfg. recommends using a vise with protective jaw covers or small wooden blocks to secure the climber).
2. With a 5/32" hex head wrench loosen and remove the two hex head screws. See fig. 1.
3. To remove the gaff from the climber place the gaff on a soft surface such as a block of wood and strike the ridge of the gaff 5/8" from the tip of the gaff. The gaff will come out of the slot. See fig. 2.
4. Ensure no damage is done to the climber or climber slot.

GAFF INSTALLATION

1. The climber slot and gaff lug are both manufactured for a precision fit. The climbers are then given a protective powder coat finish that may impede the insertion of gaff into climber slot. The finish may be removed from the boss hole and the gaff lug with fine emery cloth.

2. Press the front of the gaff lug into the climber leg iron slot. (A light coat of grease will ease insertion). It may be necessary to drive the gaff in by striking the back ridge of the gaff on a soft surface such as a block of wood. See Fig. 3
3. Insert the two black grade 8 screws and tighten using a 5/32" x 2 ¾" length Allen wrench. Hand tighten with maximum torque to achieve complete and maximum tightness. This method can yield Buckingham's 136 inch pound tightening recommendation for these fasteners. Note: use of a longer wrench can yield results exceeding the 136 inch pound recommendation and result in stripping of the screw head. Visually inspect to ensure screw heads are flush with the inside surface of the climber leg iron. See fig. 4.

4. Screw fasteners should be replaced after the first time removed. If re-using, apply a low to medium strength thread sealant (Loctite® or equivalent) to prevent screws from loosening. Screws may not be removable if a permanent type thread sealant is used.

How to Change Pin Style Gaffs on Buckingham Climbers

GAFF REMOVAL

1. Drive Lock Pins are always driven in from the **right** side of the climber and **must be driven out from the left side**.
2. To determine the left side hold the climber parallel to the ground with the gaff on top and gaff tip pointing away from your body (see Fig. 1).
3. Secure the climber such that the left edge (as determined in step 2) is facing up. Buckingham Mfg. recommends using a vise with protective jaw covers or small wooden blocks to prevent the climber from being marred (Fig. 2).
4. Drive the installed pin part way out with one of the supplied extra pins or a straight sided punch (smaller than 1/8" diameter, but not less than 3/32") so it may be grasped and removed with piers or a vise. ·If using an extra pin drive the smooth side of the pin through the pinhole. Do not drive the fluted portion of the pin into the pinhole (see Fig. 9). ·If using a punch drive the inserted pin through the pinhole and remove punch.

5a. If using pliers grasp the inserted pin and pull downward. Grasp the driven pin and pull upward (Fig. 3). (Rotating the pin while pulling may ease removal).

5b. If using a vise place the exposed portion of the installed pin in the vise and tighten. Place a small block of wood against the climber. While holding the climber strike the wood block with a hammer until the pin is removed (Fig. 4). Rotate the climber and remove the other pin. Never directly strike the climber with a steel hammer.

6. To remove the gaff from the climber, strike the ridge of the gaff approximately ½" from the tip on a soft surface such as a block of wood (Fig. 5). Ensure no damage is done to the climber or climber slot.
7. Repeat the above procedure for your other climber.

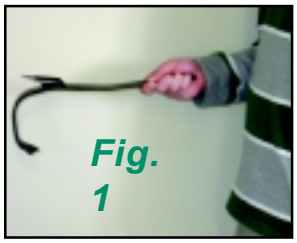


Fig. 1

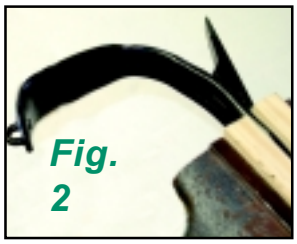


Fig. 2

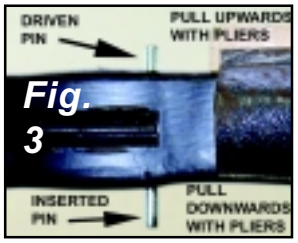


Fig. 3


Fig. 4


Fig. 5

PARTS LIST

- May include any one pair of the following Gaffs: PN 9106 for climbing hard CCA poles, PN 9206 for climbing standard poles or PN 9306 for climbing trees.
- 2 Drive Lock Pins for attaching gaffs (2 extra pins included)

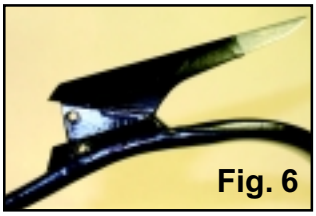


Fig. 6

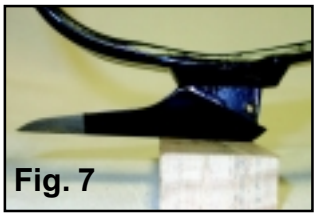


Fig. 7


Fig.8

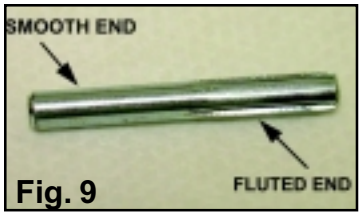


Fig. 9

GAFF INSTALLATION

1. The climber slot and gaff lug are both manufactured for a precision fit. They are then given a protective powder coat finish that may impede the insertion of gaff into climber slot. This finish may be removed from the boss hole and the gaff lug with fine emery cloth.
2. Press the front of the gaff lug into the front of the climber slot (Fig. 6). (A light coat of grease will ease insertion).
3. It may be necessary to drive the gaff in by striking the top ridge of the lug end of the gaff on a soft surface such as a block of wood (Fig. 7).
4. Ensure the pinholes of the gaff and the climber slot are properly aligned.
5. Lightly grease the smooth end of the Drive Lock Pin (Fig 9).
6. Insert smooth end of the Drive Lock Pin into the pinhole on the right side of the climber (See Gaff Removal step 2 to determine the right or left side of the climber).
7. Using a hammer squarely strike the Drive Lock Pin so that it passes completely through the lug of the gaff and into the climber pinhole on the left side (Fig. 8). The head of the pin should be flush with the right side of the climber.

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