The Steward Clog

by Equine Digit Support System, Inc.

Instruction Guide

The Steward Clog Offers:

- Multi-Direction Leverage Reduction

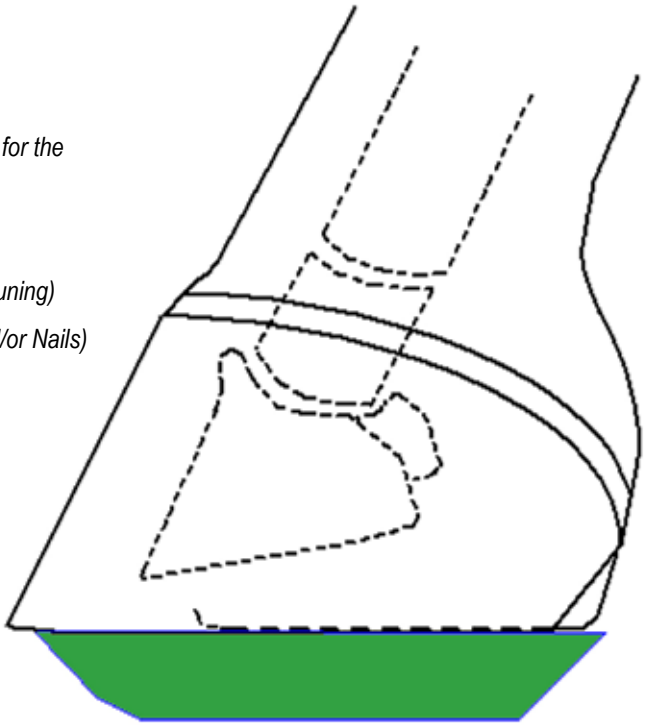
(Eased Anterior & Medial/Lateral Breakover)

- Stable Support to the Coffin Bone *(solid landing for the bars, frog & caudal sole)*

- Protection to the Coffin Bone *(seated out area)*

- Adjustability *(can attach Rails & wedge pads for fine tuning)*

- Variety of Attachment Options *(Screws, Glue and/or Nails)*



Is An Effective Treatment For:

- Laminitis & Founder

~ Rotation & Sinking

- Ring Bone

~ Pastern or Coffin Joint Arthritis

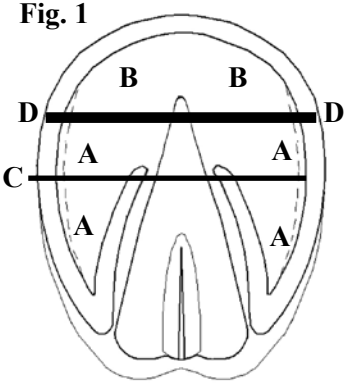
- Coffin Joint Disease

- Collateral Ligament Strain

Hoof Preparation Guidelines

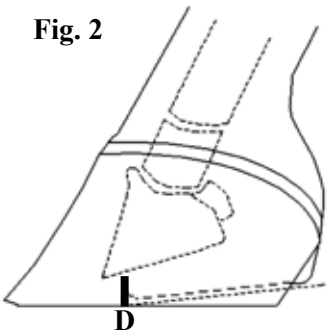
1. In dealing with Laminitis or Founder cases where the coffin bone has lost its parallel relationship with the hoof capsule, (i.e. rotation) it will be necessary to prepare the foot in a manner that will re-establish a solid, functional foundation, as well as achieve a better joint alignment. With feet that have rotated, it will be necessary to de-rotate the hoof capsule by trimming the heels that have grown excessively due to the laminitis or founder episode. Typically the dorsal hoof wall and laminae are compromised and the front part of the foot is painful, therefore it is necessary to utilize the back half of the foot for support. Trimming the heels as directed will produce a foundation in the back half of the foot suitable for supporting the coffin bone and returning basic function, as well as providing protection to the tip of the coffin bone. In cases where the sole has prolapsed and extends beyond the height of the wall, either with severe rotation or sinkers, wall extensions may be necessary. Regardless of the situation, the Steward Clog provides an excellent foundation for all special need conditions, as long as the foot preparation is properly done. However, for specific or more complete hoof preparation and shoe/Clog placement details, it is always recommended that you refer to the EDSS & Steward Clog instruction videos. ***(Contact EDSS, Inc. for more details or questions: (719) 372-7463 ~ www.edsshoofcare.com)***

Fig. 1



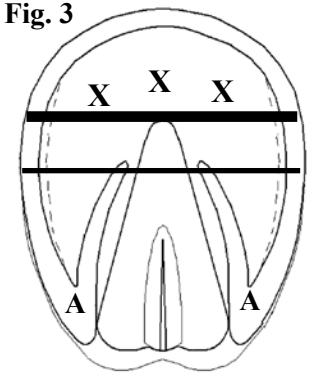
2. The primary step in every EDSS, Steward Clog or Natural Balance application is to accurately exfoliate the foot to the live, functional sole, which means to remove the chalky or flaky sole material until you get to the waxy appearing surface. It is most critical to exfoliate the foot in the back 2/3's of the foot behind the toe-quarter region. (Figure 1-A) It is critical to leave as much of the sole as possible in the front part of the foot. (Figure 1-B) Only take enough to find your references. Next, it will be important to map out and mark the widest part of the foot. (Figure 1-C) *(Refer to the Natural Balance Live Sole - Hoof Mapping Protocol for more details.)* It can be common for the frog apex to the be stretched in cases of founder, therefore using the widest part of the foot to help locate the true frog apex may be necessary. The TRUE frog apex is approximately 1" ahead of the widest part of the foot on a size #0 to #2 foot. (Figure 1-D & 2-D) Once you have located the true frog apex, continue a line through that location to the side of the foot and up the outer wall on each side. This reference will be used later when placing the Clog.

Fig. 2



3. Once the foot is properly exfoliated, you can then begin trimming the heels. Start at the widest part of the foot or just slightly forward, and trim straight back to the level of the live sole in the heel region. The plane of the hoof wall after trimming should be close to the same plane as the frog, and the heels should end near the back of the frog. (Figure 2 & 3) Flatten each heel with your rasp so that the finished landing on each side is equal in size, has the same curvature to the heel, and include about the same amount of the bar. (Figure 3-A) Once the foot is prepared, it will be helpful to hoof test the foot in order to more accurately locate the distal border of the coffin bone. With a marker, place "X's" or a line to indicate the border of the bone (the areas with the most pain). (Figure 3) This will be used in Step 8 for trimming the impression material.

Fig. 3



4. Rasp some or most of the distortion/flare that exists on the dorsal wall. It is helpful to find a prominent growth ring about half way up the foot, where it is straight to the coronary band above that, then start rasping from that line down until the wall is fairly straight from the coronary band to the ground. (Figure 4) In some cases there may be a considerable amount of distortion, so you may be able to remove a little more of it once the Clog is applied and the foot is stable.

5. In cases where there is little or no sole clearance or sole depth, we recommend to NOT trim the wall flat to the sole in the front part of the foot. If the foot is properly de-rotated the front part of the foot may not be in contact with the Clog. (Figure 5-A) The Clog will primarily be attached to the good solid landing that was produced in the back 2/3 or so of the foot. (Figure 5-B) If you do have plenty of sole clearance, you can flatten the wall from your prepared heel all the way around the toe, just be sure to leave a little wall above the level of the exfoliated sole in the toe region. (Figure 6)

Fig. 4

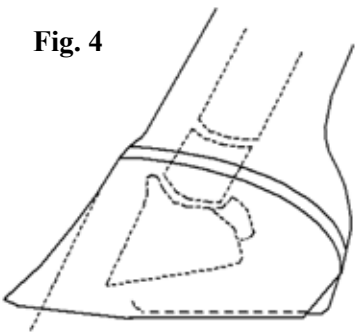


Fig. 5

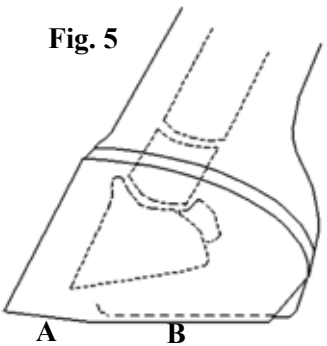
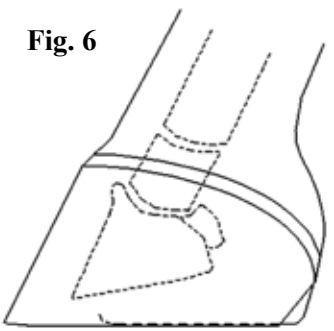


Fig. 6



6. In situation where an adhesive will be applied to the sides of the hoof wall when attaching the Clog, it will be important to prep the hoof wall at this time. This can be done by rasping off all of the old shellac that is on the wall, so the glue can be applied to a roughened, fresh surface. Once you have done this, it will be important to not touch the wall with your fingers, because that small amount of oil will interfere with the adhering quality of the glue. Wearing latex gloves when handling the foot may be helpful as well. You will probably erase the line you drew earlier on the outer wall that represents the True frog apex, so you will want to re-mark that at this point. Keep in mind that you may have to freshen up that surface after applying the impression material or if you accidentally touch the wall, but at least you will have most of the surface ready. *(***Note:** Most adhesive manufacturers recommend NOT using any sort of alcohol or cleaner on the hoof prior to glue application. Please consult your adhesive manufacturer for specific instructions.)*

Fig. 7

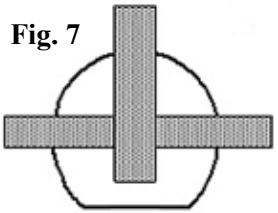
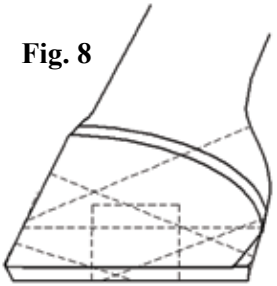


Fig. 8



7. Especially in cases of laminitis or founder, it will be important to apply the Sole Support Impression Material using an Impression Plate, prior to applying the Clog to the foot. This will ensure a perfectly flat surface in which to apply the Clog, as well as the opportunity to relieve some of the Impression Material from painful parts of the foot. To do this, you first estimate the amount of material that will be required to fill the cavity of the foot (1/2 the total material required will be colored, and the other 1/2 will be white). Prior to mixing the material, you should place 2 strips of duct tape on the ground surface of the Impression Plate in a "T" or "Cross" fashion. (Figure 7) Then start mixing the Impression Material until all of the streaks are gone and the material is a consistent color and texture. Press the mixed Impression Material into the cavity of the foot and try to distribute it fairly evenly, especially the back 2/3's of the foot. Place the Impression Pad onto the foot and pull the duct tape tabs up over the toe and the sides, then proceed to wrap duct tape around the foot and pad, making sure to get at least one wrap up over the heel bulbs. (Figure 8) Place the foot on the ground and quickly pick up the foot next to it so that the horse bears weight on the wrapped foot. *(**Note:** You will typically have about 60 to 90 seconds to mix the material and get it in the foot.)*

Fig. 9

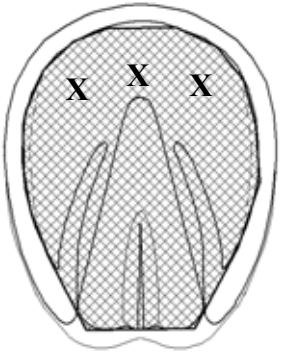
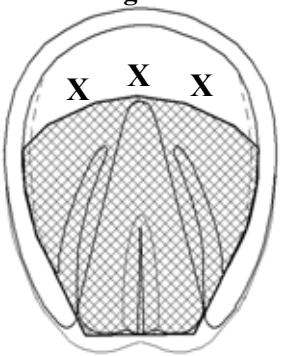
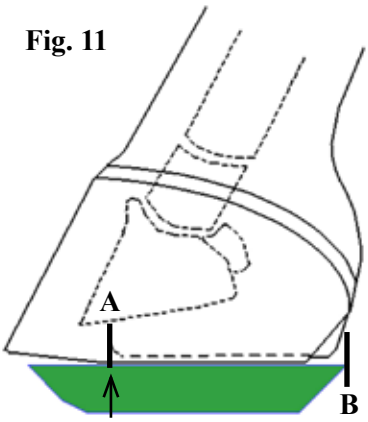


Fig. 10



8. Once the Impression Material has setup, you can remove the Impression Plate. (Figure 9) With a knife, start at the toe and begin trimming the Impression Material back towards the frog until you have revealed the "X's" or line that represents the distal border of the coffin bone (the most painful areas). (Figure 10) Again, you will probably want to freshen up the outer wall at this point so that the adhering surface will clean when the glue is applied.

Fig. 11



9. When fitting and applying the Clog, that you align the mark on the side of the hoof wall (which represents the location of the True Frog Apex), with the embossed line on the Clog. (Figure 11-A or 12-A) This will ensure that the distal border of the coffin bone is generally above the seated out or recessed area on the foot surface of the Clog. You should also look to see that the back of the clog extends to the back of the frog. (Figure 11-B or 12-B) If there is a gap between the toe and the Clog because of the de-rotation process, you can fill that void with some soft like Play-Do or one half of the Impression Material (Colored or White). This will keep debris from collecting there. (Figure 11)

Fig. 12

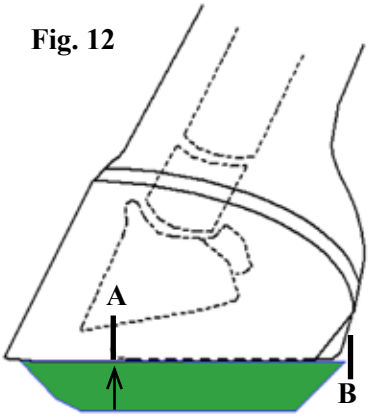


Fig. 13

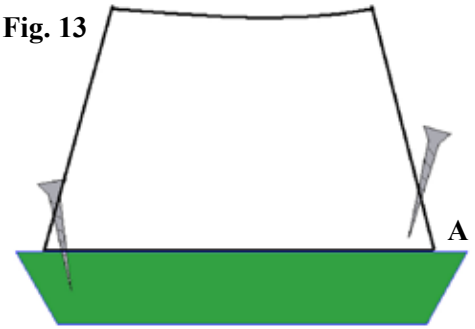


Fig. 14

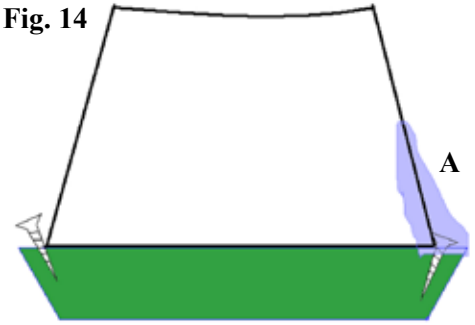
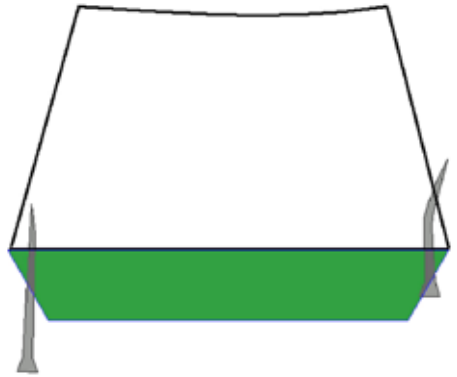


Fig. 15



10. There are a few options available for attaching the Clog to the foot. You can either pre-drill holes in the hoof wall at the same position and pitch as a nail so that screws can be inserted from the top of the side wall down in to the Clog, or screws can be applied next to the wall and into the Clog, or a combination of both. Combining screws through the wall and next to the wall is the most common and is usually recommended. If you choose to attach the Clog with screws, it will be necessary to have anywhere from 1/8" to 1/4" of Clog material extended beyond each side of the hoof wall. (Figure 13-A) The first step in attaching the Clog is to pre-drill holes in the toe-quarters where you would normally drive nails (in the white-line or on the whitle-line/wall junction.) Then place the foot on the Clog (make sure to re-align your marks), and with a special coated screw, insert the screw into the holes from the top and screw them down into the Clog until the screw head just touches the hoof wall. (Figure 13) Be careful not to overtighten the screw, and don't hesitate to back it out just a quarter of a turn to make sure it is not too tight.

11. With the Clog fairly secured in place, take several 1" or 1.25" sheet rock screws and run them right next to the bottom of the hoof wall, and at a slight angel, into the clog until the head of the screw makes contact with the hoof wall. (Figure 14) You can use 3 or 4 screws (or more) on each side of the wall and you can go as far back as necessary. We recommend putting screws to within 1.5" of the back of the heels. Once all screws have been inserted, you can now take your adhesive of choice and apply it over the screws, up the side of the hoof wall, and over the edge of the Clog. (Figure 14-A) (You may want to put some putty or one half of the Impression Material into the screw heads prior to applying the glue.) Once the adhesive has set, you can smooth it up with a rasp and make it look nice.

Alternate Attachment Method

12. In cases such as Ring Bone, Collateral Ligament Strain, or when nailing is not a problem, the Clog is designed with a slots that can accommodate a nail. If you choose to nail the Clog on, you will need to select a size that is very close to the actual width of the foot. If it is just slightly wider than the foot, then this will work as well since you can rasp the side of the Clog to achieve a more accurate fit. When applying the Clog with nails, it will be important to pre-drill the holes in the Clog using an 1/8" bit or something close to the that size. For the most part you want to drill the holes perpendicular to the foot surface of the Clog. Sometimes you can slightly pitch or angel the holes inward for the toe-nail holes, but as you move towards the heel, it will be important to make them straight up and down. Nail choice is also important when attaching the Clog. We have found that an E-Head nail works the best because the head is larger and will provide better holding power and will be easier to clinch. Once you have the holes drilled and selected the proper nail, you can proceed with properly lining the Clog up and nailing it on, just as you would any other shoe. (Figure 15) When clinching, you can use your normal clinching methods, however depending on the type of clincher you use, it may be helpful to turn your clinching tool upside down to get a better bite on the bottom of the nail. Start by rolling the clinch over slightly, then flip your clinching tool back around and finish clinching it down.

13. Since the foot has already been pre-groomed in step 4, all that should be necessary when finishing the foot is to slightly undercut any hoof wall that is hanging over the front of the toe. **DO NOT take the toe back to meet the Clog!** If you where conservative in grooming the foot in step 4, you can get a little more diligent with removing the distortion if a lot exists. With the adhesive and screws holding the foot solid on the Clog, there is less chance that over thinning the dorsal wall will hinder the overall integrity of the hoof. Often times if the distortion is not dealt with, it can cause some congestion in the front of the foot and interfere with new hoof wall growth.