

Tricks for Proper D-loop Placement

A simple sequence to get your D-loop properly placed on your bow-string

THIS TECHNIQUE MAY BE WELL WORTH YOUR TIME, AT the very least as a cross-check of your equipment setup. Especially, if after using mass-weight distribution, draw length adjustments, creep tuning, and the like, you are still having problems holding steady or getting consistent grouping and a forgivable setup. If you are shooting your bow already, you can skip step #1. However, if you are setting it up for the first time or if you are changing your string and cables or center serving, it may well pay you to try this technique.

Step #1

Initial Positioning of the D-loop

Initial positioning of the D-loop can be done by eye, or it can be done a bit more precisely. Most shooters simply put the arrow on the arrow rest, attach it to the string with the nock, and “eye ball” it so that the arrow is running through the center of the rest attachment hole and is “dead level.” Then they tie in some serving thread above or below the arrow nock, tie in the D-loop knot above and below that, and go paper test. I used to do it in this same way. However thanks to some conversations with a more knowledgeable individual, Mike Cooper, I soon found out that for single cam and hybrid cam bows, the common technique might be good enough for a hunting rig, but for pin-point accuracy, I was overlooking some important issues. Since that time, I have put together what I feel is an accurate sequence (which is originally mine) for setting that D-loop very close the first time and thus not having to deal with the potential of nock travel problems cropping up due to improper D-loop placement.

Here’s a step-by-step procedure I’ve come up with to initially place a D-loop on the string.

1. Mount your bow square on the bow string.
2. Line the bottom of the bow square even with the center of the rest mounting hole (or bottom of the hole if you choose to shoot your arrows down that low).
3. Take a piece of masking tape, about $\frac{3}{8}$ to $\frac{1}{2}$ inch (9-

13 mm) wide and place the approximate center of the masking tape in line with the bottom edge of the bow square as it relates to the string (see *Photo 1*).

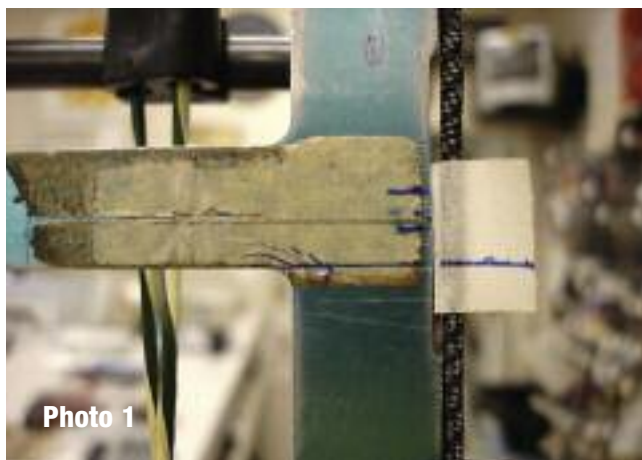


Photo 1

4. Wrap the masking tape around the bow string. You will have to remove the bow square to accomplish this.
5. Replace the bow square on the string and re-align the bottom edge with the center of the arrow rest mounting hole.

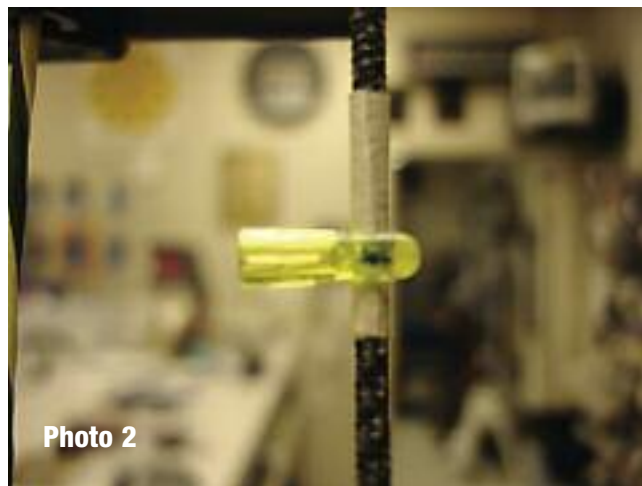


Photo 2

6. Mark the masking tape with a red-line or blue line that you can see that aligns with the bottom *edge* of the bow square.
7. Place an arrow nock on the bowstring, using the mold line on the nock to align it with the red mark on the masking tape. It is going to fit tight and that is what you want (see *Photo 2*).
8. Using a sharp knife. Carefully trim the masking tape even with the top and bottom of the arrow nock. You only need to “score” the masking tape around the string to get an even edge. You do not have to cut very hard, and then you can remove the excess with your fingernail (see *Photo 3*).

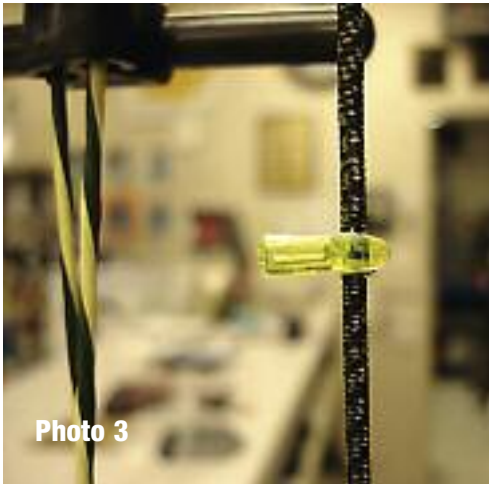


Photo 3

9. If you serve in above the nock with serving do it now, without moving the nock. If not, then tie in the top D-loop knot
10. If you serve in below the nock, then do it now, without moving the nock. If not, then tie in the bottom knot of the D-loop (see *Photos 4 & 5*).
11. Remove the arrow nock and tighten up the D-loop to get it to the length you normally shoot. You have written down that piece of

information, haven't you? Remember, always be pro-active.

What you have accomplished here is to place the D-loop so that the center of the arrow is really down the center of the arrow rest mounting hole. This may or may not be the best positioning, but it is the recommended position given by most bow manufacturers. You are not quite ready yet to go out and paper tune this rig, however-not quite so fast!

Step #2

Check your Cam Synchronization/Timing

It is likely that during the stretch in process one of the “units” in the harness has changed in length slightly. Before proceeding with “D-loop tuning” you need to make sure your cams are in synchronization and/or properly timed. You can either have a friend watch as you draw the bow back to the stops. He/she

will carefully observe whether or not the cams hit the “stops” at the same time, or if one is ahead of the other one. Another way to check this is through the use of the drawing or crank board. This allows you to have the unit hold the bow back while you check the cam synchronization/timing. For obvious reasons, the crank board is the better




Photo 4


Continued on Next Page

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Photo 5

choice.

For a single cam bow, getting the cam in “time” isn’t as difficult, since the manufacturers give you “timing holes” to line up and there is a little fudge room. One cam controls pretty much everything, including draw-length, etc. Thus, if the cam is the correct size for your draw-length, you can set it exact using the power cable and/or the bowstring to get it where you want it without radically affecting the “timing.”

With the hybrid cam system, however, since the two cams are working together, cam synchronization is imperative. If the cams are out of synch, you will feel mushiness at full draw, and the bow will be difficult to tune as well. Additionally, you won’t be able to hold as steady on the target. When the cams are in synch, the wall is solid, and the holding qualities at full draw are quite noticeably better.

If the Top Cam is Late What I’ve found is that if the top cam is late, you simply let out twists on the control cable, one-half twist at a time to get the cams in synch. This doesn’t change the draw-length as radically as adjusting the power cable to retard the bottom cam. Many shooters want the top cam to be very slightly ahead of the bottom cam, but this is accomplished during a “creep test,” which is a “fine tuning” scenario and isn’t part of this article.

Step #3 Check your Draw-Length

Draw-length, in my honest opinion, as well as most of the top shooters in the game today, is probably the most overlooked and yet critical aspect of shooting a bow as accurately as possible. In previous articles, I’ve outlined a method of transferring the brace height of your bow to the site window and using this line as the reference point for your bow’s draw-length setting (see Volume 10, No. 3, 2006). It is personal preference, but I find that using the true draw setting of my bow is by far more accurate and easier to accommodate than converting this to the AMO draw length. I simply take a measuring arrow or a long arrow; draw the bow back

to full draw and anchor. Then, a friend marks the arrow at the juncture of that arrow and the line on my riser and we make the “reading.” This is the True Draw of the bow, and unless that brace height changes radically, is how it is set regardless of arrow rest positioning. It is easy to keep tabs on and is always there for the taking. The initial draw-length setting of your bow may have changed some now that you have been shooting it awhile. Now is the time to check it, and if necessary re-set it by twisting or untwisting both ends of the bow string the same number of twists to decrease or increase draw-length in small increments. You can do this with the buss cable(s), but then you are toying with cam rotation/synchronization, and could throw that off. Why do I say to take equal twists at each end of the bowstring? By now, you probably have your peep site rotation where you want it. If you want it to stay there, then twist equally from each end of the bowstring. You may have to remove the peep and put it back in 180 degrees different, but normally, this won’t happen unless you put a lot of twists into the string or lose count. It would take a lot of twists to throw off the cam synchronization (on a hybrid or twin cam), but re-check it anyways.

Step #4 Checking for Proper D-loop Placement

You are probably thinking, “I put my D-loop so that the arrow is passing thru the center of the arrow hole, so it must be on right.” You are mostly correct, but not completely. As I stated earlier, thanks to Mike Cooper, I’ve learned that proper placement of the D-loop on the string is often an overlooked part of the initial bow set-up.

Here’s the Trick Keep the sight on the bow, but remove all stabilizers and counterweights from the bow. Then, draw the bow back, hold, aim, and shoot an end of arrows. Don’t pay any attention to impact point at this time. After each shot, look at the D-loop carefully, without touching it. Is that D-loop deformed? This means, is the end of the loop higher or lower than the center of the space between the knots (*see photos top of next page*)?

If it is deformed, then your D-loop is not in the “center of the pulling area” and thus, your nock travel is being thrown off; along with the stability of the arrow and your holding ability! If the D-loop is angled up from center, move the loop down slightly (not much) on the string. Shoot several more arrows and this time, also pay attention to the holding qualities of the site picture and what the loop looks like after each shot (don’t touch the loop to ‘re-form’ it). Repeat the process until that D-loop is not deformed after the shot or even a let down. Now, once the D-loop is not being deformed in the shot process. Shoot an end pay-



The D-Loop on the left is deformed “up,” the one on the right is deformed “down,” and the one in the middle is “just right.”

ing careful attention to your aiming. Note: you are doing this without stabilization, correct? Well, once you get this done and put your stabilization back onto the bow, you aren’t going to believe the difference in your sight picture!

More than likely, you will not have moved that D-loop enough to affect your cam synchronization or timing, but if you want, go ahead and re-check it. What you have done here is to get your nock travel as close to level as you can based upon how you hold the bow.

One other thing I’ve learned is that if you are having problems getting your release to fire, or if you struggle with a shot or shots, a quick look at your D-loop will tell you a lot about what you are doing during your immediate past shooting sequence. This helps immensely to analyze whether or not you are plucking, pulling your elbow up, chin down, elbow down, etc. In my particular case, if I’m struggling with my shot process, and I either shoot a bad shot, or I let the shot down, in nearly all cases, my D-loop is deformed upwards. However, on the shots that go cleanly or without much of a struggle, I have no D-loop deformation at all. Yet another case of Proactive Archery and paying attention to what is going on around you in practice!

Never move that D-loop up or down on the string once you have it finalized. Now that you have your D-loop placed in the proper location on your bowstring, it is imperative that if you need to adjust you’re the angle of your arrow in relation to the bowstring to get arrow flight and grouping (paper testing, or whatever). The key here is that “nocking point” adjustments (now a misnomer) are to be made by moving the arrow rest and not the D-loop on the bowstring.

Conclusion

We have reviewed a step-by-step technique for placing a D-loop on your bowstring. The technique in Step #1 (above) can also be applied to those wishing to shoot a release rope around the bowstring and below the arrow nock. However, most of the time, the arrow rest will

have to be dropped significantly to accommodate the different pulling point imparted on the bowstring by this method of release attachment and anchoring.

We also reviewed techniques for checking cam synchronization/timing and the

importance of correct draw length. You are probably wondering why the cam timing and draw-length isn’t checked before placing the D-loop onto the string. The answer is simple; you can do those before final placement of the D-loop on the string, but if you place the D-loop very far off, you will have to do the cam synchronization/timing and draw length over again anyway. Anytime you adjust the cam synchronization/timing, you also can affect draw length slightly, depending upon how much you have changed the synchronization/cam timing.

Finally, we gave a technique for determining if that D-loop is really placed correctly for how you, the archer, whose hand is in the bow and drawing it back, actually becomes a part of the “shooting machine.” It is very sensible to realize that if that bow shoots and holds steady in your hand without any stabilization and the D-loop isn’t deformed, then when you put on the stabilization, things can only get better!

We finished by driving home the point that the D-loop is the one thing that does not get moved during the subsequent fine-tuning process. The Arrow-Rest is what is moved up and down, not the D-loop. This is such a common error that so many shooters are making, including myself, until being properly instructed on what that D-loop was all about (and that a hybrid cam and a one-cam bow are not the same animal as a twin cam “wheelie” bow with a long and forgiving axle-to-axle length, and with a long, soft, and forgiving round-lobed set of cams on it).

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