THE MEASURE OF SUCCESS

IN PART TWO OF HIS GUIDE, DUNCAN BUSBY EXPLAINS HOW TO MEASURE YOUR BOW'S ACCESSORIES IN ORDER TO ACHIEVE CONSISTENT AND ACCURATE RESULTS

At some point you may find that your equipment will let you down at the worst possible time; you may be in the middle of a tournament or without any access to help. But knowing where everything should be set on your bow could make the difference between success and frustration.

Whether you set up and tune your own bow or have a shop or coach do it for you, it's vital that you make a note of where everything is set. Even if you don't want to make any adjustments, sometimes things can work themselves loose or break, and wear and tear items such as D-loops and strings will eventually need replacing. As your equipment will not stay in the same position for any great length of time, knowing these measurements will make it quick and easy to return it to its optimal setting.

In the second part of this feature I'll show you how to measure your string components, I'll explain the importance of knowing your arrow rest position, and I'll show you some quick cheats when it comes to making important reference marks.

STRING MEASUREMENTS

Once you have taken your bow's vital measurements, which were featured in part one, you should measure the components on you string; your nock point, peep height and D-loop.

Your nock point (in particular the point at which you nock your arrow to the string rather than its position in relation to your arrow rest) can be affected either through serving separation and its movement on the string, or alternatively, poor cam timing due to string or cable stretch; either of these can alter your sight marks and cause poor arrow groups.

To measure your nock point, attach your brace gauge to the centre serving and position it so that the lowest measurement on the nock height scale (0mm or 0 inches) sits in the middle of your nock point. Note where the gauge lines up on your bow; I usually set my nock point so that it lines up with the middle of the rest mount holes in the centre of the riser, as I find that this is a clear reference point which allows me to see if anything has moved.

Your peep sight is held in place with serving which can move; a change in the position of your peep height will affect your reference point and it will alter your sight marks. So to avoid these issues you'll need to use a tape measure or your brace gauge to measure the distance between your peep sight and nock point. Remember to choose consistent points at each position to ensure that you get an accurate and consistent reading.

I find that my D-loop measurement is an invaluable piece of information because any changes to the length of your loop will affect

MEASURE YOUR BRACE HEIGHT TO A PLACE ON YOUR RISER, PUTTING A MARK ON THE GAUGE IF YOU WANT TO AS A QUICK CHECK

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MARKING CABLE STOPS – ESPECIALLY IF THEY ARE ADJUSTABLE – WILL HELP YOU STAY CONSISTENT

YOUR CAM POSITION WILL INDICATE ANY STRING STRETCH, SO MEASURE THEIR POSITION RELATIVE TO THE LIMBS WHEN THEY'RE IN ALIGNMENT

both your draw length and your reference point, both of which may cause unnecessary damage to your results.

Whereas a D-loop won't usually stretch past the first few shots you make with it, it's a high wear and tear item which will need to be changed regularly, so it's important you know what size you need to shoot well.

You can measure your D loop with a brace gauge or tape measure either while it is on the string or off it; I prefer the former as it can be difficult to remove undamaged. Though if you're changing your loop it can be quite handy to use the length of material from your old one as a reference, just remember any damage you cause to the ends of it could alter its overall length.

ARROW REST MEASUREMENTS

Finally, you should measure your arrow rest, and as this has many movable components it's likely to cause many variables if it's knocked or damaged.

Changes to your rest position can affect your arrow height and may alter your sight marks and produce poor arrow groups. As this can also be affected by changes to your nock point it's important to understand the relationship between the two and be aware of the tuning measurements of both.

The blade, the most commonly used launcher, is rather fragile and it's easily broken or bent so be aware of any differences in its appearance or position to avoid bad results.

You should measure your rest height in a similar way to your nock height; attach your brace gauge to the string and centre the zero reading in the centre of your nock point. Then slowly slide it down the serving until it gently makes contact with the top of your launcher and take your reading from the nock height scale on the gauge.

The rest's centre shot can also come out of alignment and its position is important in determining how square your arrow is in the bow. Not all blades have a self-alignment system, and if you change your launcher, you need to make sure it's lined up straight again.

To measure the centre shot of your rest, nock an arrow on the string and sit it on the launcher. Then, with your measuring tape or gauge at a right angle to your riser, carefully place it against the side of your bow, somewhere near the rest mount hole. Take a measurement between this point and the middle of the arrow and keep the tape or gauge as flat and level as possible while you're doing this in order to get an accurate reading.

FINAL MEASUREMENTS

To help you identify and correct any other disparities I'd recommend that you also carefully mark your bow, with a permanent marker, in the following places.

Cams: Misaligned cams can affect your tune as well as your draw length and draw weight, so it's a good idea to know the position in which they're in alignment. It may be necessary to reset your cams after re-stringing your bow or once you've adjusted for string or cable stretch, and I find the best place to mark the cam is on either side of its

MARKING THE LIMB BOLTS AT THE 12 O'CLOCK POSITION WHEN WOUND ALL THE WAY IN WILL MAKE IT EASIER FOR YOU TO ACCURATELY ADJUST YOUR POUNDAGE

REMEMBER, IF IT CAN MOVE IT CAN AFFECT YOUR RESULTS, SO MAKE SURE YOU KNOW WHERE EVERYTHING SHOULD BE SET

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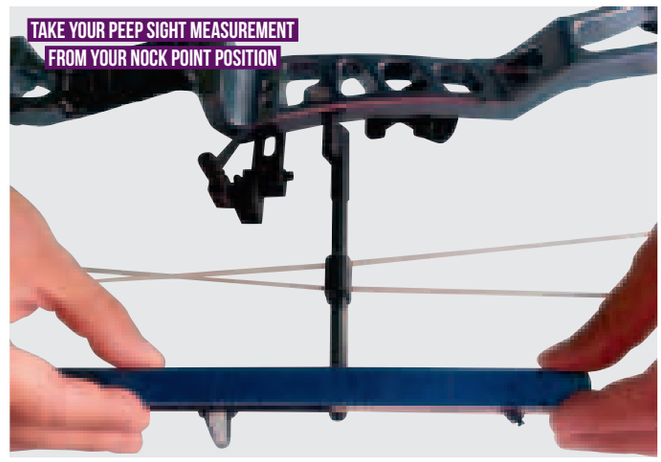
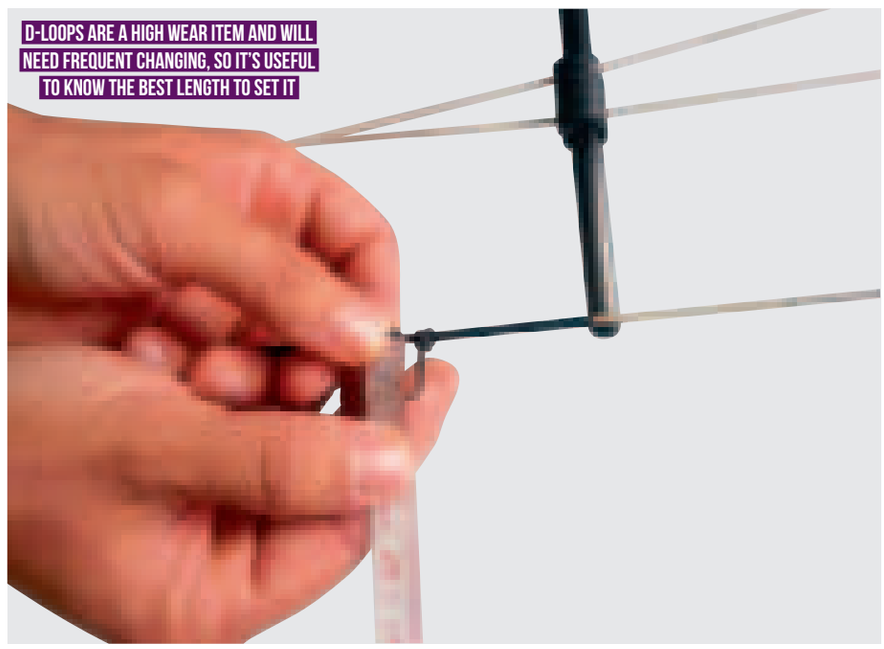
THERE'S A LOT THAT CAN MOVE ON A REST, SO MEASURE THE HEIGHT WHEN YOU'RE HAPPY WITH ITS TUNE



TAKE YOUR PEEP SIGHT MEASUREMENT FROM YOUR NOCK POINT POSITION

MEASURE YOUR CENTRE SHOT FROM THE RISER TO THE CENTRE OF AN ARROW WHEN IT'S ON THE STRING



D-LOOPS ARE A HIGH WEAR ITEM AND WILL NEED FREQUENT CHANGING, SO IT'S USEFUL TO KNOW THE BEST LENGTH TO SET IT

position with the limb, so you can instantly see if it's moved.

Draw Stop Position: If your bow has adjustable draw stops it's important to mark their position on the cam. Although it is unlikely for a draw stop to move, you'll find that both your results and draw length will become inconsistent if you are drawing your bow to a different point; you also risk potentially damaging your bow if a loose stop were to shear off.

Limb Bolts: Although limb bolts rarely move it is possible for them to slowly wind themselves out over time, and this can alter your tune as well as your poundage and, to a small extent, your draw length. If the limb bolts loosen unevenly they can also affect your nock height so I would recommend that you wind the bolts all the way in and mark the 12 o'clock position on each one; this should also make it easier for you to accurately adjust your poundage.

Cable Guard: Some bows come with adjustable cable guards to enable you to tune out any torque caused by the cables. If your cable guard were to come loose it could allow the cables to move into the path of the arrow and any contact will significantly affect your groups, so mark its position while it's tightly secure.

String Stop: String stops absorb the impact of the string so are high wear items and, as the rubber end will need replacing occasionally, it's a good idea to know its exact position on your bow. As it has direct contact with your string any change in its position can affect where your arrows will hit, so be careful to note the distance between the rubber tip and your string, as well the string stop's overall position in the bow.

Though these measurements will depend on your individual setup, you should mark any component that could work itself loose. Whereas movement is unlikely, if anything does move it will have an impact on how your equipment tunes and how well you perform with it. Remember, if it can move it can affect your results, so make sure you know where everything should be set.

I'd also recommend marking your brace gauge with numerous measurements, such as your brace height, nock and rest height, peep height and D-loop length, so you can use it as a quick reference guide – a must for on-the-spot fixes.

Learning your bow inside and out will save you a lot of time and effort in the long run, and the knowledge that you'll gain will make you less reliant on others to fix any issues you have. Ultimately, you may even find new confidence in your equipment and your ability, and when you feel in control you're more likely to find success.

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