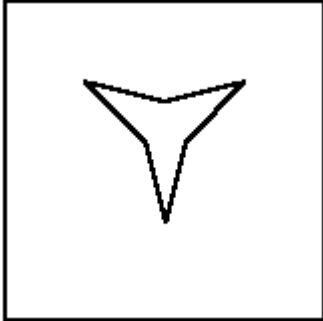


Paper Tuning Guide

Paper tuning is a process of tuning a bow by examining the flight of the arrow as it leaves the bow. To do this, we place a piece of paper, taut, in front of a boss or target so that when the arrow passes through the paper it will land in safety. To 'paper tune' we examine the tear that the arrow makes in the paper. To get a clear tear, it is usually best to tune at a minimum of 5 feet, although you can move back 5-10 yards when you feel confident.

Paper tuning is best suited to styles which use a mechanical release aid as there is little archers paradox (arrow bend). A finger shooter may use this method to correct nocking point location, but due to paradox the left - right tear will be unclear as the arrow will bend coming out of the bow. However, finger release archers can use this method, but again Bare Shaft Tuning may be more accurate.



The Bullet Hole tear

This kind of tear is what is known as a 'bullet hole'. This tear indicates to the archer that the point of the arrow enters in the middle of the tear made by the fletchings. This tells us that the arrow flight is good out of the bow at that distance. Note - Some arrow rests require a slightly high nocking point in order to lift the arrow off the rest and avoid hitting it. This kind of tear can be associated with almost perfect arrow flight **at that distance**. It is now time to try the process one more time at a longer distance - Now the fun begins.



Low nocking position tear

It is always important to correct the vertical tear first as correcting this tear may have some relevance with the horizontal tear.

This kind of tear shows us that we have a low nocking position as the point end of the arrow is entering the paper above the nock end. To correct this, move the nocking point up by about 1/16" and repeat the test until the low tear is eliminated.



High nocking position tear

This kind of tear indicates a high nocking point, a clearance problem or a very weakly spined arrow if you are using a release aid. To correct this problem, lower the nocking point by 1/16" and repeat the test until the high tear is eliminated. If after moving the nocking point a number of times and the result of the test is the same, then the problem is most likely caused by a clearance problem or a weak arrow if using a release aid. To identify a clearance problem, you can spray some foot powder on to the arrow at the fletching area OR spray some powder on the riser. Then shoot the arrow as normal, being careful not to disturb the powder, check the bow for either traces of powder or disturbances in the powder. If you sprayed the arrow, you can check to see where the arrow made contact with the

bow.

If there is no clearance problem and you are using a release aid try -

1. A more flexible launcher arm or reduce downwards spring tension on adjustable launcher type rests
2. Decrease peak bow weight if there is an indication that the arrow is too weak
3. Reduce the amount that the arrow overhangs from the contact point of the rest
4. Choose a stiffer arrow spine



Left Tear

This kind of tear tells us that we are using a weak arrow or a clearance problem for right handed finger release archers. Left handed finger release archers will have the opposite pattern. For right handed compound release archers, the left tear is common and usually indicates a weak arrow and/or a clearance problem.

Finger release archers may try -

1. Checking for clearance
2. Decrease bow weight/peak bow weight
3. Use a lighter arrow point
4. Use a heavy bow string (slower)
5. Use a stiffer spine arrow
6. Increase button tension or use a stiffer spring
7. Compound fingers only - Move the arrow rest out from the riser.

Compound release archer can try -

1. Moving the arrow rest to the right
2. Relax the bowhand to reduce torque
3. Decrease peak bow weight
4. Use a stiffer spined arrow



Right Tear

This tear is not usually seen with release shooters. However, if it does occur with a release shooter, the arrow rest is probably adjusted too far to the right, or you may be applying torque to the bow, or there is a clearance problem (vane contact with launcher rest). For finger shooters, this kind of tear indicates a stiff arrow for right handed archers. Left handed finger release archers will have the opposite pattern. Finger release archer can try -

1. Increasing bow/peak bow weight
2. Use a heavier arrow point and/or insert
3. Use a lighter bow string or faster, less creep material
4. Use a weaker arrow
5. Decrease button tension or use a weaker spring on 'shoot-around' rests
6. Compound only - move the arrow rest in towards the riser

Compound archers using a release aid can try -

1. Move the arrow rest to the left. Continue doing this until the tear is eliminated
2. Make sure the arrow has room to pass the cables
3. Make sure the bowhand is well relaxed to avoid torque.

The above tear patterns are not often achieved, as it is a mixture of vertical and horizontal. In this case it is always best to correct the vertical (nocking point) problem first as this may also cause the horizontal tear.

Courtesy Don Morrison