



# Equipment guide

*Essential information for archers*



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## Items that should be known

### General list:

- Bracing height 1
- Tiller difference 1
- Limb tips
- Limb alignment
- Sting/limb alignment through 2314
- Sight track
- Arrow rest 1 / arrow rest height
- Clicker strength / angle / clicker bounce
- Centre shot 1

### Tuning:

- Arrow angle in blank boss
- Bare shaft tune

### Preparation:

- Tab prep with leather clearance.
- Arrow selection
- Nock turning
- Point weight

### Competition:

- Fletching
- New nocks
- Bow marking
- Recheck tune
- Spares (arrows, rest, tab, consumables)
- Glue rest

# Equipment Check

## Basic:

Below are a number of points that all archers should know when it comes to setting up their bow and equipment. This document has been constructed in the order of relevance and order of proceeding.

Some information and images have been lifted from the Easton bow-tuning manual.

[http://cdn.eastonarchery.com/uploads/download-files/Tuning\\_Guide.pdf](http://cdn.eastonarchery.com/uploads/download-files/Tuning_Guide.pdf)

## Bracing height

Look at the recommendation for you bow type within the bow manual supplied (or find the online copy). Set the bracing to the mid point suggested, it is also worth adjusting within subjected range to improve group size. This will be down to experimentation. This should be checked every time the bow is shot and throughout the day.

## Tiller difference

The tiller of the bow is the distance form where the limb enters the bow to the string; the top limb should have a bigger tiller than the bottom limb. The difference in measurements should be within a range of 0-4mm.

## Alignment:

### Limb Tips

As a starting point to get your limb alignment set you should assess where the limb tips of the bow are. Below are two images, the one on the left needs altering and the one on the right is correct.



Firstly, you should position yourself so that you can see down the length of the string aligning it with itself, appearing as a dot.

Secondly see where the very tip of the limb lines up with the body of the limb. On the left image the tip is off to the right slightly, in this case the limb pocket should be adjusted to center the tip so it looks like the right image.

### Limb alignment

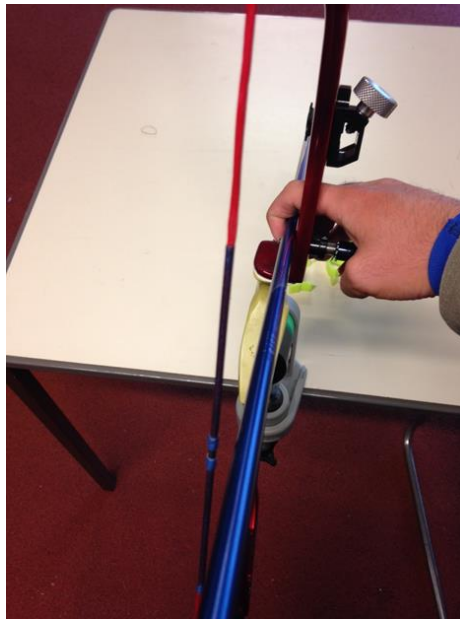
Having set the limb tips your limb alignment should be fairly good, to check this, Beiter limb guides should be used. Place the gauges on the limbs at various points, line the string up through the bolt holes in the back of the bow and the string should pass through the center of the gauges.



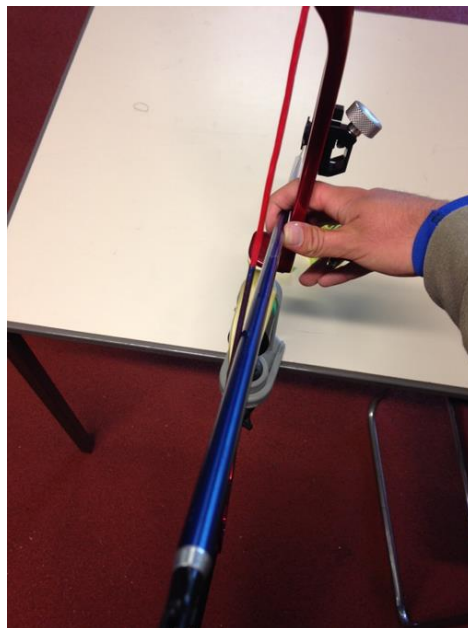
It is more important to get the limb tips centered than the limb alignment, the alignment can be achieved by twisting the limb in some cases which results in the limb not folding down flat form full draw. If the alignment and limb tips cannot both be achieved, the limb tips should come first.

### Sting/limb alignment through 2314

Once the alignment is set one last check of the alignment should be conducted, this is to see if the string path is in line with the target. The limbs can be in line but not centered with the arrow track, so the longrod can be pointing off one way or another. Effectively shooting the arrow into the bow, line the string up through the back bolts again and see where it is in relation to the long rod. Also a 2315 arrow shaft should be the distance from the inside of the bow to the side of the string. If this is off both limbs need to shift over equally to align the string path with maintaining the limb alignments.



This is too far from the string, so both limbs need to be shifted to the right to align the edge of the string with the side of the shaft as below.



# Components

## Sight track

Ensure that the sight is straight; flip the sight around so that the sight track is level with the string. Slide the bock up and down the bar to ensure that rack is straight, if not adjust with track bolts.

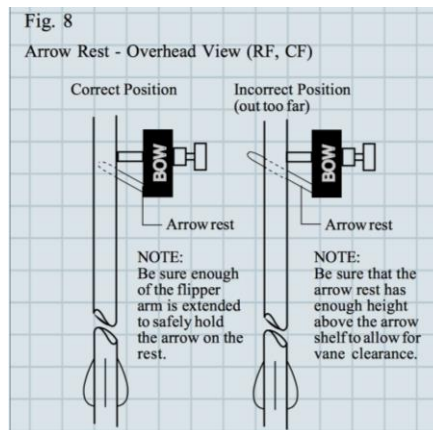


## Arrow rest 1

Ensure your arrow rest is installed straight onto the riser by using the bracing gauge as a square edge.

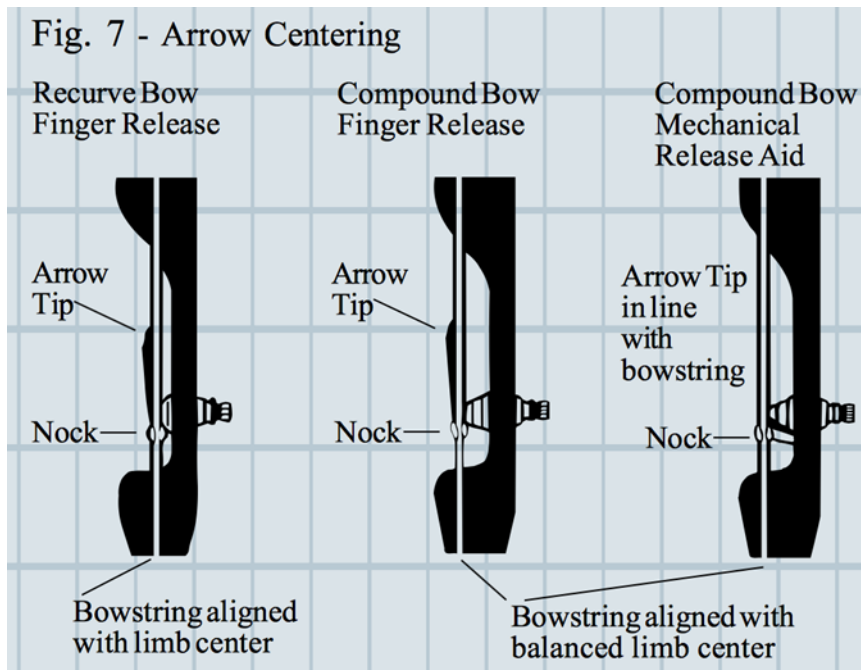
Also adjust the arrow rest arm so that the arm is flush with the side of the arrow.

The center of the shaft is to be centered on the button in a vertical plane.



## Centre shot

The center shot requires the arrow to be set slightly out from the string, ensure to line the string up through the rear bolts of the bow. Adjusting the center shot via the amount the button that is pushing through the riser.



## Nock orientation

Turn your nocks to give you the best clearance possible going past the button and arrow rest. With the arrow on the string the fletches should appear in a Y shape.



## Clicker

Clicker tension can be important; you would want the clicker to be firm against the arrow but not applying so much pressure that the button is depressed.

Also the clicker position shouldn't be too far forward, if the tip of the arrow is right on the end of the clicker it could jump upon release.

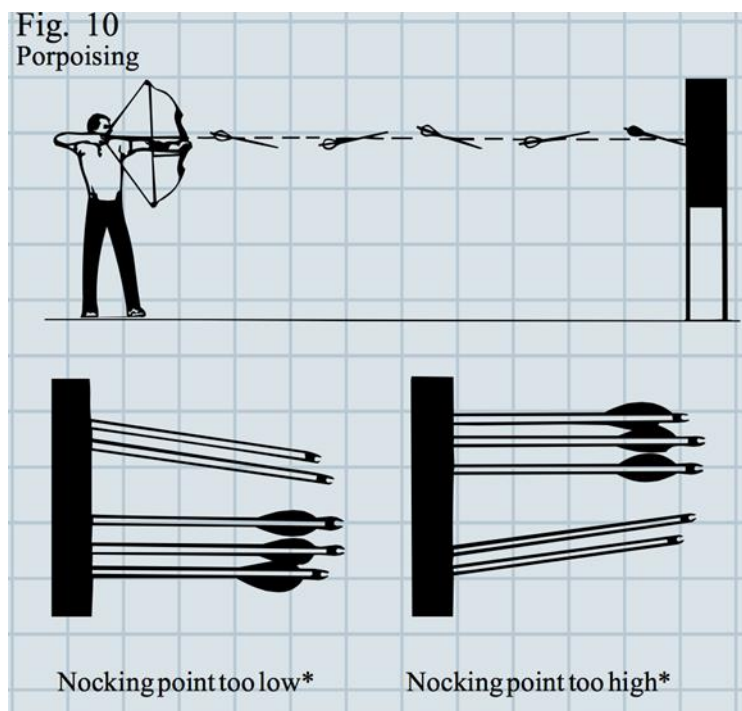
## Tab

- Finger spacer should be large enough so that only one finger touches the arrow at a minimum.
- Tab faces don't touch the arrow and nock.
- Leather at an appropriate length.

# Arrow tune

## Basic tuning (Bare Shaft)

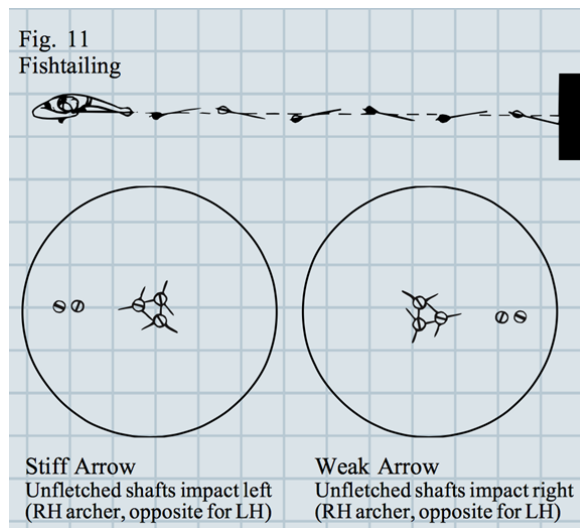
It is important to get the nocking point height roughly sorted before tuning; this can be achieved by shooting a bare shaft along side your fletched arrows. If the bare shaft goes high then your nocking point is too low as pictured below.



Once the nocking point has been corrected and the bare shaft is just slightly above your fletched arrows, the tune of the arrow can be checked.



This is performed in a similar manner, as the diagram below you will see how your arrow is reacting (right handed archer, opposite for left handed).



If your arrow is too stiff this can be corrected by removing tension from the button, the button should be set roughly to its mid-point. If you have to adjust it to the extremes of its range, you should tune the arrow with more poundage or by adding a heavier point.

If the bare shaft goes to the right, the arrow is too weak and pressure should be removed from the button, reduce the length of the arrows, wind off some of the bow poundage or remove point weight.

### Essential Equipment:

Bracing gauge  
Limb gauges  
Spare tab  
Spare strings  
Allen keys  
Button kit (plungers, springs, spanner)  
Spare arrow rest

### Should be known:

Each athlete should have a basic understanding of the following points.

- Understanding of which order to set up the bow.
- Terminology (tiller, nocking point, etc.)
- What to check every time you shoot.
- Bow maintenance regarding strings, arrows and tabs etc.
- How to select and purchase new equipment.
- Competition prep
- Arrow selection, weight matching, nock turning.



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