

PRELIMINARY SET-UP

FOR A

RECURVE BOW

- 1. Bow Length**
- 2. Draw Weight**
- 3. Limb alignment**
- 4. Tiller**
- 5. Arrow Rest**
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1. Bow length.

It is essential to find a shop that has the facility for shooting the bow being purchased. This is a must as although two bows may seem the same they may shoot totally differently. It is essential that the bow being selected is correct for the archer for whom it is being purchased.

The length of the bow is very important, a bow that is too short may seem a little harsher to draw than a bow that is the right length or one that is too long. The short bow may have a little more cast shooting a given arrow than a longer bow shooting the same arrow. But, if the sight marks are sufficient for your needs shooting the longer bow, then the longer bow may be the best choice. It may be smoother to draw, and it may reduce arrow nock pinching at full draw. The choice of limb being purchased may also have a bearing on the “feel” of the draw.

The following shows a suggested bow length to try for a given arrow length. This is not cast in stone it is only a rough guide.

60" – 64"	for archers who draw	24" or less.
65" – 66"	for archers drawing	25" – 26"
67" – 68"	for archers drawing	27" – 28"
69" – 70"	for archers who draw	29" or more

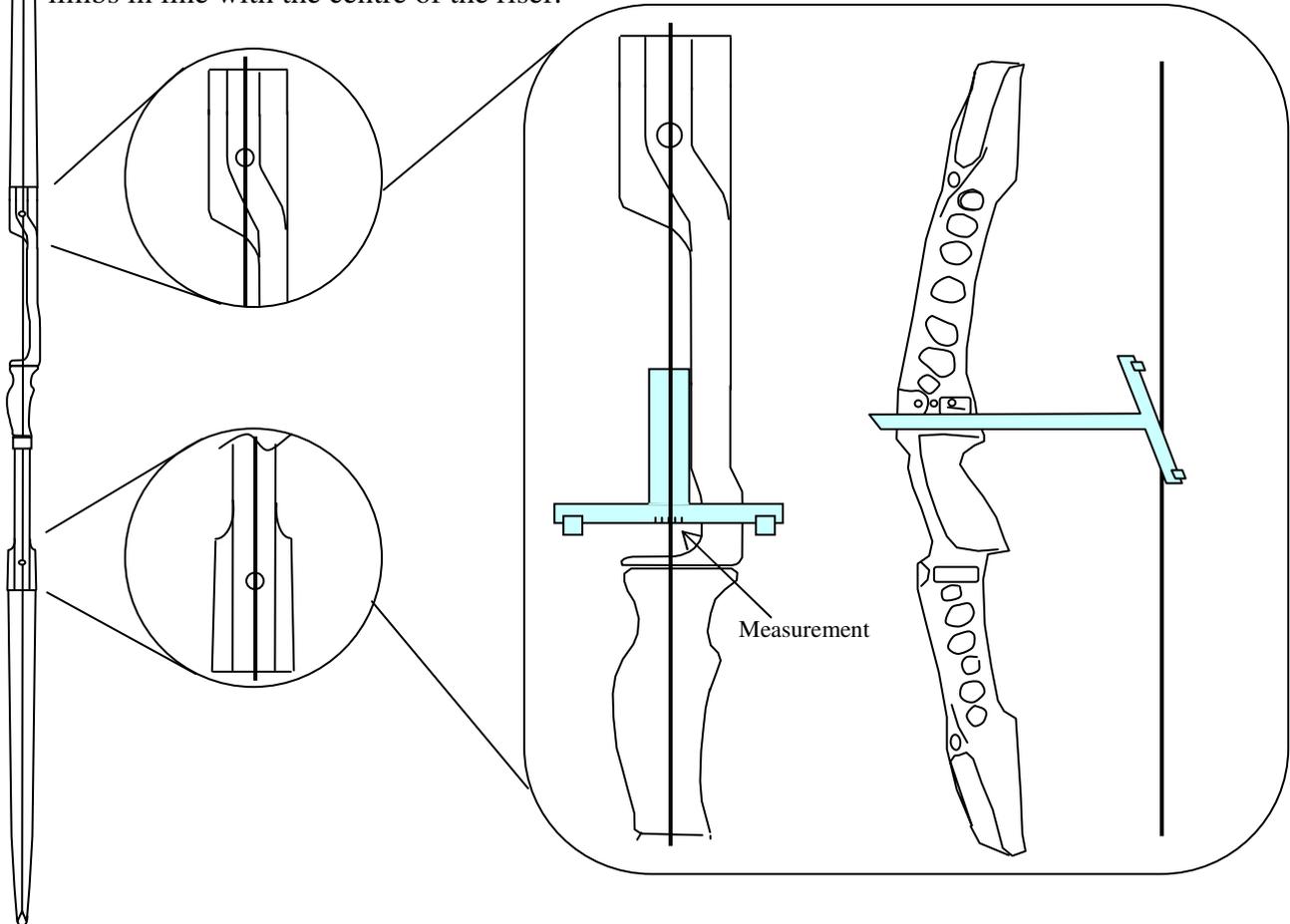
2. Draw weight.

When purchasing the archer’s first bow, remember that as the drawing muscles and technique develop the archer will be able to handle a more powerful bow. If this is not considered at the time of the first purchase there may be some cost for replacement equipment (such as limbs etc.) that has not been budgeted for.

Consider before purchasing a bow that the archer should be able to handle it without strain or discomfort. It is worth remembering that the archer should also be satisfied with the aesthetics of the bow, including the colour. If the archer is not totally satisfied with their purchase it may cause unforeseen dissatisfaction with the equipment in the future.

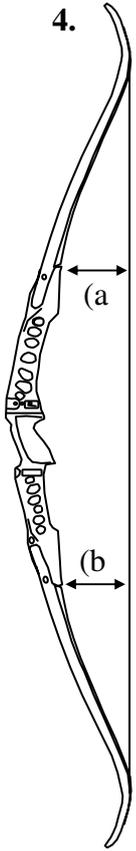
3. Limb alignment.

String the bow, stand it vertically and position yourself so that you can look from the string side of the bow. With your eyes, line-up the string with the centre of the top and bottom of the riser, the string should then line up down the centre of both limbs. If the string does not line-up down the centre of the limbs and riser at the same time some sideways limb adjustment will be necessary. Most risers now have this facility where small adjustments can be made to get the limbs in line with the centre of the riser.



To check if the limbs are not leaning sideways you can place the long edge of a bracing height gauge up against the inside of the riser and read the measurement from the flat edge to where the string is on the gauge. If the bow is cut 10mm past centre then the measurement from the flat edge to the centre of the string should read 10mm. **This method of measurement should only be used if the inside of the riser is flat and inline with the direction of arrow flight.**

4. Tiller.



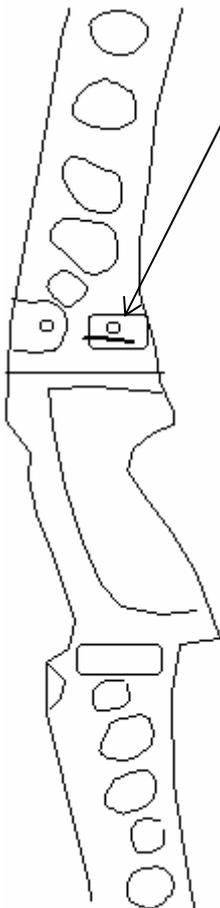
For a bow to be efficient both limbs have to work in unison. If they are not set to work together the efficiency of the bow may be reduced.

To set the initial tiller adjustment, check the manufacturers recommendation. If this is not available, for the initial set-up, set the distance of (a) 3 to 5 mm greater than the distance of (b).

The reason for this difference is the arrow rest is usually above centre. This makes the nocking point above centre, which has an effect on the power differential of the two limbs. To overcome this the lower limb needs to be given a little more power than the top limb. **This is a very simplistic explanation and many other factors need to be taken into account when this area is being finally adjusted.**

Some manufacturers recommend measuring a distance from the tip of the limbs and using this point to set the tillering. Whatever method being used this may need to be adjusted later when the bow is being tuned to suit the archer, arrows and equipment attachments.

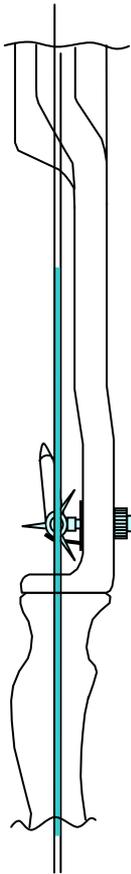
5. Arrow Rest.



When fitting the arrow rest make sure that the hole in the arrow rest fits exactly over the hole in the riser that takes the pressure button. If these two holes are not lined up the arrow rest may foul the pressure button plunger negating the efficiency of the buttons operation.

Also, make sure that the arrow rest arm does not slope down away from the bow. If it does slope down, the arrow may slip down the arm and fall off the rest during the draw.

6. Initial centre-shot setting.



Prop the bow in the upright position or put the bow on an upright stand. Either use limb alignment gauges or you can measure the width across the limbs where they leave the riser and mark the centre with a pencil or similar, **A piece of adhesive paper can be temporary stuck to the limbs by the end of the riser, this will save actually marking the limbs.**

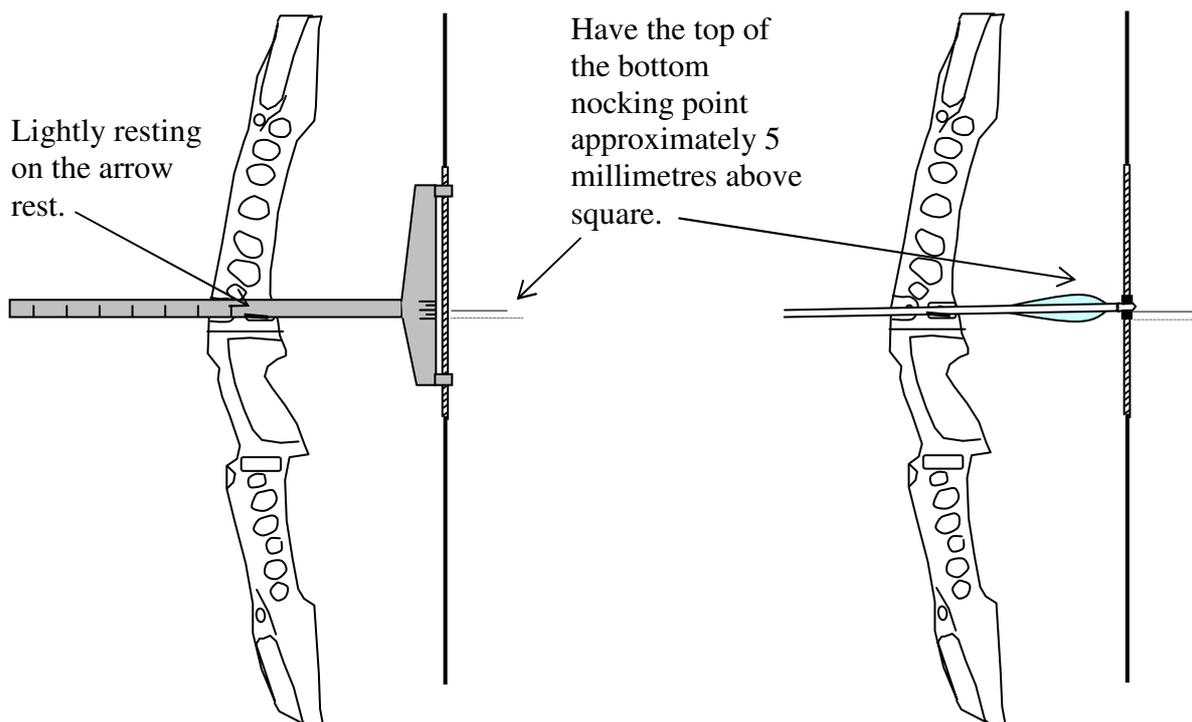
These two lines can then be used to visually line up the string, the pressure button can then be adjusted to move the arrow in or out from the riser to get the string alignment so that the pyle of the arrow just shows to the outside of the string. This setting is required to compensate for the interference the releasing fingers have on the string, which in turn affects the initial flight of the arrow known as the archer's paradox.

The drawing shows a right-handed bow set-up.

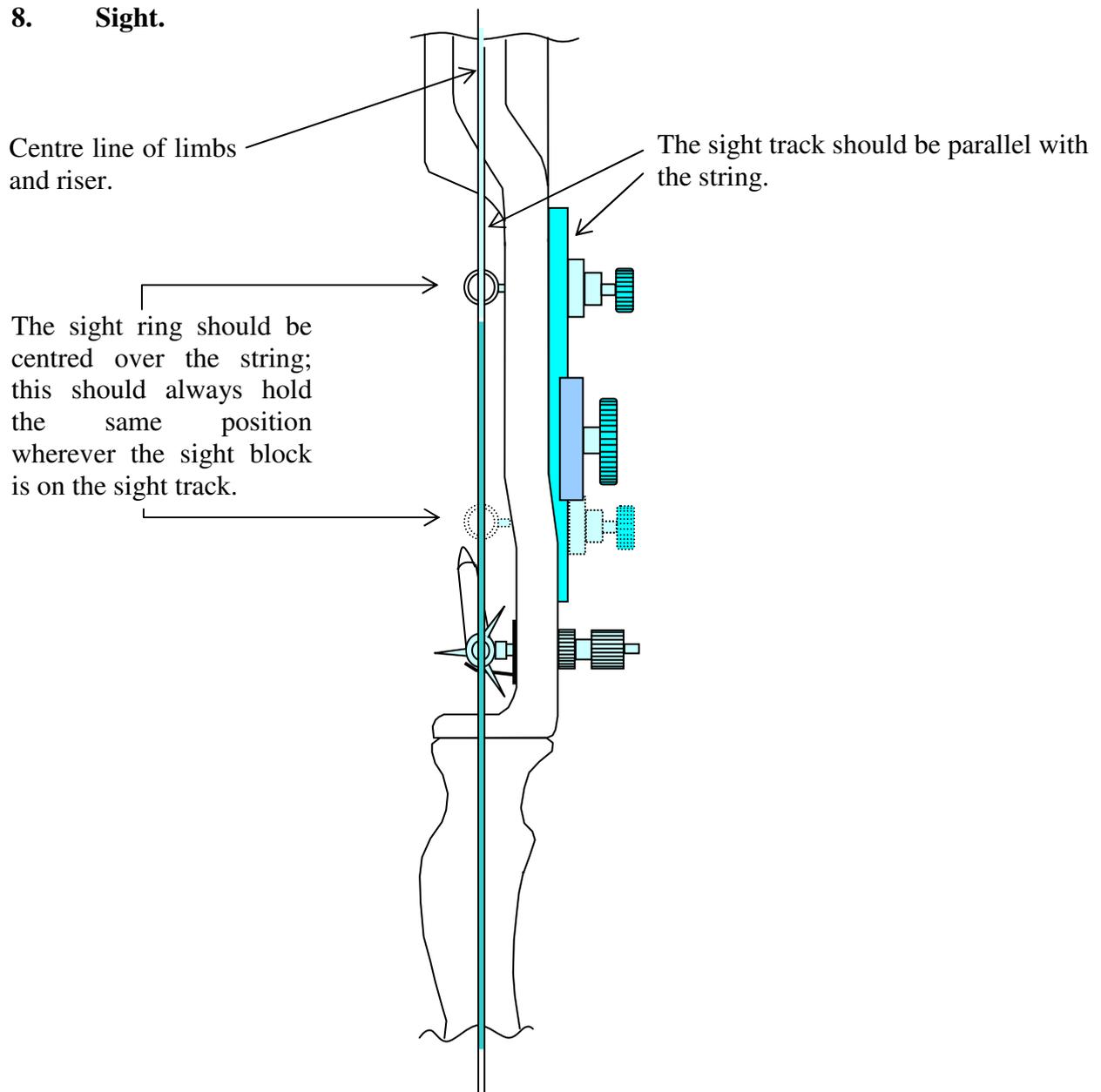
If limb alignment gauges are used care must be taken that the gauges are close to the top and bottom of the riser and that they are properly attached to the limbs.

7. Initial nocking point setting.

The correct height of the nocking point depends on many things. A suggested starting point is to have the nocking point set so that the bottom of the arrow is approximately 5 millimetres above square, taking the vertical line on the string with the bracing height gauge extension arm resting lightly on the arrow rest.



8. Sight.

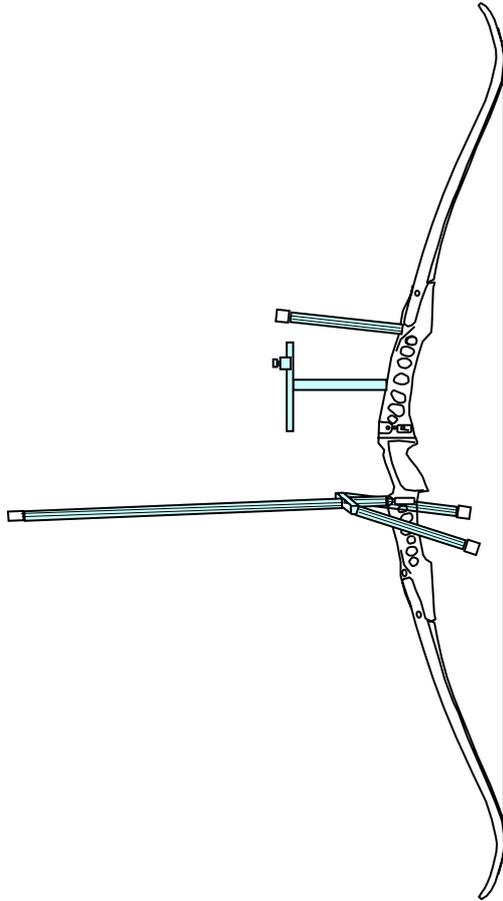


Have the bow propped vertically on a bow stand and adjust the sight track to be vertical and in line with the bowstring.

Whilst visually lining the string up with the alignment marks put on the limbs earlier adjust the windage on the sight to get the centre of the sight ring lining up with the string. This line-up should stay true whether the sight block is at the top of the track or bottom of the track.

Later when the tuning is taking place it is better to adjust the pressure button spring and arrow spine to match the bow set-up than adjusting the bow to match the arrows.

9. Stabilisation.



There are many things to consider when selecting a stabiliser system. Each differently manufactured bow has different characteristics, this coupled with each persons shooting technique, draw-length and arrow weight makes a stabiliser set-up very personal and only the shooter of the bow can select their own stabiliser system.

Each attachment that is fitted to the bow **may** make the bow shoot differently, but each of these attachments **will** make the bow feel different. They each have a task to do and adding extras may have the effect of negating what you are trying to achieve.

When selecting a stabiliser system watch for the following - If a too flexible stabiliser system is used beware that any movement or shake in the bow hand during the shot can start the rods to vibrate, this movement will be transmitted to the weights. Once the weights start to move or shake the movement will be transmitted back through the rods to the bow, the bow hand will now have difficulty in stopping this movement and holding the sight steady on the point of aim. If a very rigid stabiliser system is used you will find you will be able to hold steadier on the point aim but any vibration of the bow after the shot is made will be transmitted through the bow hand and into the wrist and arm which can be uncomfortable and cause fatigue or injury over long periods of shooting. There are many types of Torque Flight Compensators on the market so if you are experiencing excessive vibration - give them a try.

Any change to the bow set-up may change the tuning characteristics. So if you change any of your stabiliser set-up it is advisable to go through the tuning procedure. The sight has some stabilising effect on the bow, so if you fit a new sight this may also change the characteristics of the bow.