



Shartac  
775gr broadhead  
Flight Test

**TEST 1**

**ARROW:**

- Blackeagle-Rampage 150 spine (1)

Carbon to carbon:

- 28.25"

Nock:

- Factory

Insert Ethics (2)

- Ethics archery 200gr

Total Arrow weight:

- 1472gr

Fletching:

- Bearpaw 4" shield cut feathers. (3)

**COMPOUND BOW 1:**

- Bowtech Reckoning 35 (4)

Draw weight:

- 62lbs

Draw length:

- 26.5"

FPS:

- 129fps @ 20 yards 1472gr

Velocity measurement tool:

- LabRadar (5)

Broadhead:

- Shartac 775gr (6)

Camera:

- Sony RX10IV (7)

To say the 775gr broadhead is large is an understatement. Due to the mass of the broadhead, it will take good arrows.

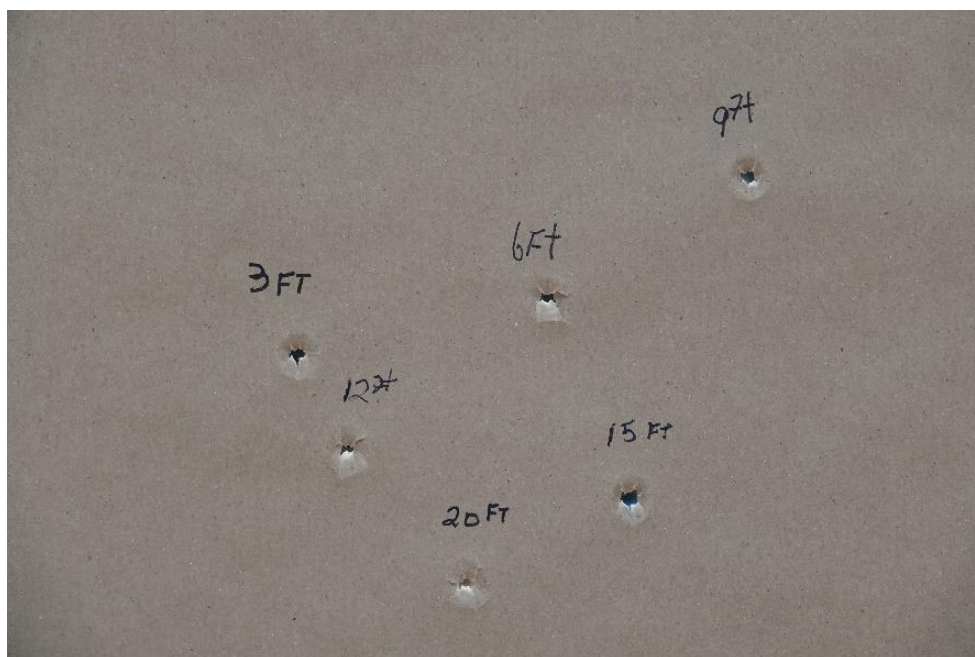
The first step is to check if the arrow will need nock tuning. If the arrow does need to be nock tune, tune it to the smallest tear.

The Blackeagle rampage did not require nock tuning.

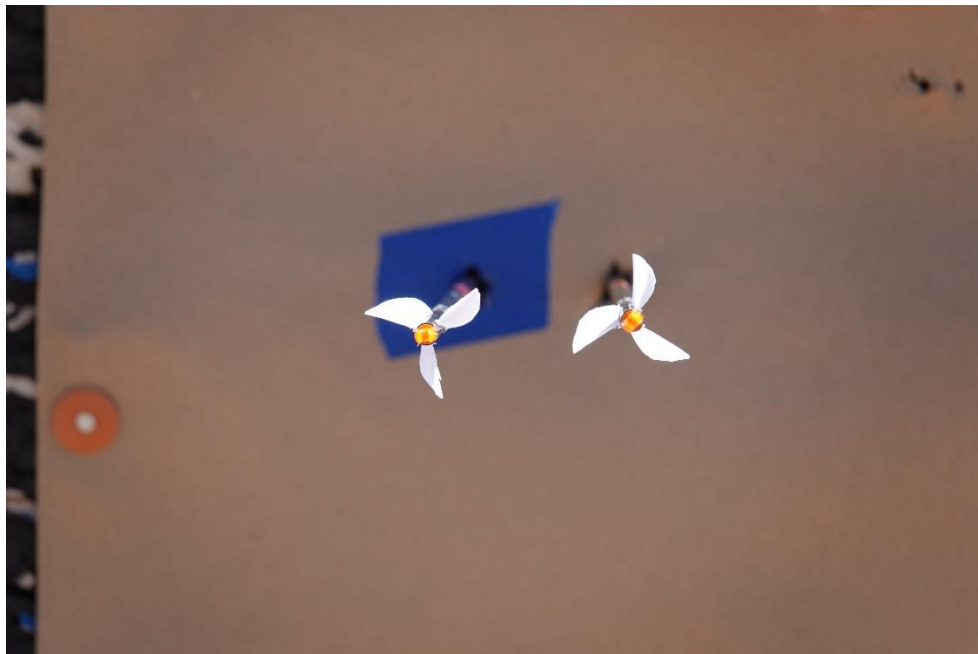
### **Bowtech Reckoning 35-Blackeagle rampage:**

The first step was to set the bow to factory specification—set rest at 13/16 with the arrow's center in the center of the burger hole. Set cam lean, so the 13/16 measurement was square at the front and back of the riser.

I started tuning a bare shaft. Here are the results at different feet. ( For a standard build, I tune bare shaft at 20 yards.) I made vertical adjustments with the rest/loop and cam sync. The horizontal adjustments with the cam lean adjustments. (deadlock)



Once I have reached a level nock travel at 20ft with the bareshaft, I will compare flight and impact with both the field point and broadhead.



For this set and at this velocity, it took 4" feathers at 5° helical to get the broadhead under control. Part of needing this feather size is due to the low velocity.

Tuning the feathers may be needed with this type of setup.

You can see with the correct amount of drag, I now have good flight and grouping between a field point and broadhead.





### Conclusion.

The broadhead is on the extreme side of things, and it took finding the correct amount of drag to get the broadhead to be under control at 20 yards. Understanding this is important when tuning. (note: when tuning and getting a bare shaft with correct reaction and a broadhead is not reacting correctly, you need to look at the drag and make sure you have the correct amount of drag before you start making adjustments to the bow)

The wind will be a problem when shooting arrows with this amount of FOC and fletchings. The arrow will turn into the wind, and penetration may be affected depending on how much the arrow turns. It would be best if you looked at it when tuning your setup.

### Reference

1. [Black Eagle Arrows](#)
2. [Ethics Archery - The most innovative archery products in decades! – ethicsarchery.com](#)
3. [Bearpaw Feathers | Arrow Making | Arrows | Products | Bearpaw Products \(bearpaw-shop.com\)](#)
4. [Homepage | Bowtech \(bowtecharchery.com\)](#)
5. [Labradar: The new generation of ballistic velocity radar | Labradar \(mylabradar.com\)](#)
6. [Single-bevel Broadheads & Matching Field Points - Shartac](#)
7. Sony RX10IV [Search](#) | [Search Sony Electronics](#)
8. <https://www.facebook.com/Waterfield.Archery> (Waterfield archery. (Zachary Waterfield) Provided the blackeagle arrows and the ethic inserts.

