

## Making the rear centering ring

So I am devoting a post to the rear ring since it a critical component and must fit perfectly. One of the challenges with this component was measuring and fitting a boat tail that was not perfectly round. I solved that by cutting a series of concentric rings that I could fit over the boar tail to keep it round. Then I could measure and fit the ring no problem.

On to the pictorial...



Here is the boat tail with the rings that keep it round. This allowed me to accurately size the centering ring and later fit it.



Shown above is the ring before cutting. It was a stock 6" to 98MM 1/2" centering ring I got from Giant Leap. Of course this ring has 2 layers of 6oz carbon vacuum bagged on it. Inside the ring is a wooden disk with a 1/8" centering hole for the router pivot. I taped the edge of the centering disk with tape and press-fit it into the centering ring. I then cut the ring to the proper size on my router table.



Here is the dist after cutting. I then carefully aligned the Aeropac retainer on the disk and marked the first two mounting holes. Here I am screwing in the second threaded insert. Once these are set I bolted on the retainer and used the retainer as a jig to assure I drilled the holes in exactly the right place.



Here is the ring with the Aeropac retainer mounted. Perfect alignment!



Another view. Now I need to sand the sides to match the boat tail profile for a perfect fit.



I used the same overhead router pivot and clamped it to my bench sander to cut the sides at an angle to match the boat tail profile. Also important detail – make sure to do the taper the correct direction.



Here is the final ring ready to be epoxied to the motor mount.



Now I epoxy the ring to the motor tube. I used Aeropoxy for this for max strength. Before I glued it on I put a little square of tape over each mounting hole to keep epoxy out - this saved me a bunch of grief.





All done... and it fits perfectly in the boat tail bottom.

Before proceeding further on the tail assembly I want to make the fins. So next up – Making fin pattern, and then the fins.