

# O-Ring Winding Hooks & "S" Prop Hooks

*by George White*

Are you tired of paying several bucks for crocket hooks, then having them turn sideways and beat the insides of you model? There's a very inexpensive and effective solution to that problem, at least for relatively low powered models such as Coupes, P-30's, Jimmy Allens and nearly all scale models. Believe it or not, it's just a simple neoprene plumber's O-Ring.

I first learned of the idea, which is a common feature among many FAC flyers, after reading an article written by Bill Henn, one of the more prolific and competitive flyers in the country. I couldn't believe that a simple O-Ring would be strong enough to stand up to anything larger than a couple of strands. Not so!

I sent an email to Bill and here's essentially what he told me: "I've been using the neoprene O-rings ever since I returned to the hobby about 5 years ago. I use the 9/16" Dia X 1/8" thick ones for 4X1/8" and 6X1/8" motors. I was skeptical regarding use with the six strand motors because the rings twisted so much, but found they would withstand torque far beyond that obtainable with a 6 strand 1/8" motor."

Just to check this out, I put an O-ring that size in a vice and gave it a few turns on my winder. It broke at 29 in.oz. of torque. My tests indicate that's about the breaking torque of 12 strands of 1/8" Super Sport. The fact that the vice had sharp edges probably didn't help with this test, so when attached to a rubber motor, the breaking torque might be even higher.

These O-rings are probably available anywhere plumbing supplies are sold. I bought mine at Lowes. The ones suitable for six strands of 1/8" rubber are #31 size with dimensions as mentioned above and come 10 to a box for \$1.27. I've used O-rings exclusively for all small models since discovering them — using some much smaller and only 1/16" thick for very small scale and embryo models.

For the most effective use of these O-rings, you need to use an "S" shaped prop hook. Herb Kothe showed me how to make this type hook at the Gathering of the Turkeys back in 2002. Regrettably, I've found it impossible to describe in words how to make the S-shaped prop hook. From my simple experience, you have to hold an example in your hand to successfully make one. In fact, if any reader of this rag wants to make one, send me a buck and I'll make a sample and mail it to you. The photographs show basically what it's about. WARNING — it's possible to have the "S" turned the wrong way, which will ruin your day when the motor comes off the hook, so pay attention.

The O-ring locks quite nicely into the "S" shaped hook and runs truer than any crocket hook I've used, including the "T" shaped ones.

As for the technique of mounting the wound motor onto the prop hook, I've not found it

difficult to just grab the wound motor about an inch behind the O-ring let that one inch of motor unwind, and simply inserting the O-ring onto the hook. If you're concerned about the motor slipping out of your hand, you could jam a wire into the twisted O-ring to hold the motor as you mount the hook, but I haven't had to do that. Perhaps that indicates that I don't wind my motors to sufficient torque!!

One last note — if you are making a motor with an odd number of loops, don't forget to insert the O-ring onto the rubber before you tie the ends together. Ask how I know that!!

