The Gizmo Geezer's Solution to the Hook-knotting Problem

An Article Shamelessly Lifted from the December 1999 issue of The Windy Sock, the newsletter of the San Antonio, Texas, Alamo Escadrille, Joe Joseph, Editor

(Editor: Here's another neat tip from Saskatoon's version of Fritz Mueller: Orville Olm. Thanks Orv!)

The knots in fully wound rubber motors have a disturbing tendency to bunch up around the prop drive hook. This unpredictable event, often happening after the model is launched, at worst could stop the prop altogether by jamming up against fuselage parts, or it could just cause power-robbing vibration. This vibration is due to something I call "the skipping rope effect" where the knot bunch at the hook throws the rubber motor off center and whips it around in the fuselage, occasionally removing parts and ripping tissue covering. Some people try different hook shapes, like Z-hooks for example, but they really don't work any better than the standard hook In fact, in some cases they actually make things worse and are often more difficult to fabricate (Amen!..Joe). For years, I have been on a quest for the perfect hook knot management system. Extensive tests were done on existing designs in hopes of finding one suitable for my Precision Freewheeler Product. With much trial and error, I finally have something that works very well and which I use exclusively on all types of indoor duration models and outdoor models with sixteen strand motors. I call it the SLEEVE HOOK

The system consists of an easily bent hook shape and a pliable sleeve. The sleeve snugly surrounds both the hook and some of the rubber motor forcing the head end of the motor onto the thrust line and keeping it there. The hook shape, as shown in the diagram, is important in that the longer parallel sides maintain the sleeve in alignment with the thrust line, and the "tail" keeps the knots from pushing the sleeve too far forward. (See Figure I)

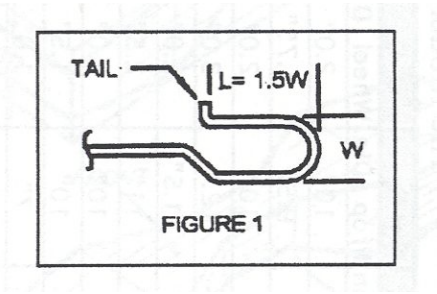

FIGURE 1

Sleeves can be almost any piece of plastic tubing of suitable size. I've even used soda straws in a pinch, but I prefer the large size silicone fuel tubing for *1/8"* motors from two to eight strands. For indoor duration models where weight is important, I use various sizes of heat shrink tubing available in electronics supply stores. Use a length of paper clip or piano wire with a small hook bent into one end to fish the lubricated rubber motor through the sleeve. Hook up the motor and then slide the sleeve as far as it will go over the hook The length of the sleeve should be at least twice that of the hook's "L' dimension. (See Figure 2) This process may seem fiddley, but once you get used to it, you will have little trouble, and you will be amazed a how smoothly your

motor will run. If I'm winding with a blast tube, I simply slide the sleeve on the motor, unhook the motor and wind. I then reattach the motor to the hook and slide the sleeve into place.

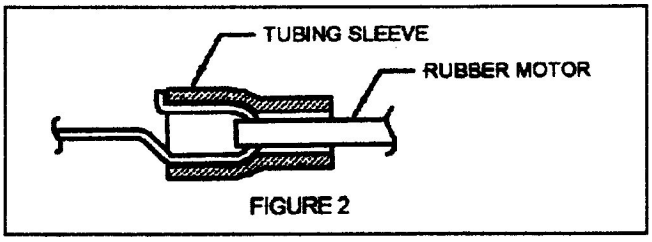

FIGURE 2