

Tom Wilson on O-Rings for Cox Engines

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The Cox .020 and .049 reed valve engines use a small rubber o-ring to seal the joint between the venturi tube and the backplate. Over time, the o-rings deteriorate, and the seal at that joint leaks fuel or air or both in unwanted quantities. Long ago and far away, in a distant land, hobby shops were on every corner — and every one of those shops had Cox repair kits or spare parts. Those days are long gone. And, even if you could find a Cox repair kit, the passage of time means that o-ring(s) contained in the kit are ready to go south on you, if they haven't done so already. So what do you do? Well I've hacked off pieces of fuel tubing with a razor from time to time, trying to make my own o-rings with somewhat limited success. Tom Wilson suggests a better way to do that. He takes a piece of fuel tubing of the appropriate diameter, puts it INSIDE a piece of brass tubing, and pulls it through until the short length needed to make an o-ring is exposed. He then cuts it off using a new steel double edge razor blade. If the end of the tube is cut at a 90 degree angle, you should be able to slide the side of the razor blade down the end of the tube and get parallel sides to your new "o-ring".

Some people don't like to "roll their own" and would like to buy ready made. Well o-rings are widely used in industrial sealing applications in all sizes and shapes. There's a Seattle based outfit — 0 Rings West, www.oringswest.com telephone 1-888-722-2602 that stocks o-rings of all types of materials and sizes. While they sell in small quantities, small quantities for such suppliers include bags of 50 or 100 o-rings. I'm not certain which material Cox used for its o-rings (different materials have differing levels of resistance to alcohol and oil) and don't know the exact size needed. I intend to get my digital calipers out and measure the venturi tube O-ring seat on some representative Cox Pee Wees and Babe Bees. I expect that 0 Rings West will have the correct size, and with a little review of the different kinds of materials used, I ought to be able to come up with the right o-rings. If I do, I'll "spread the wealth" among club members at whatever my cost is. While we'll wind up with several lifetimes' supply of 0- rings, at least they'll be "fresh" from the 2006 vintage. *Ed. Note. Hopefully, we'll hear the results of Mike's efforts*