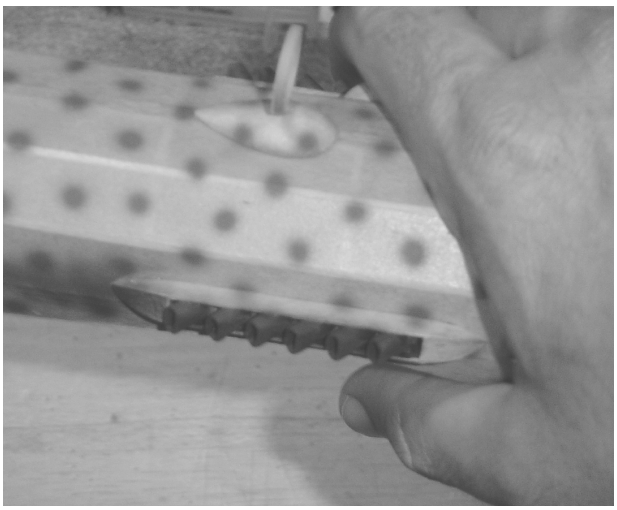
SCALE EXHAUST DETAILS

by: Mike Isermann

Sometime last year I attended a scale contest in Dallas or San Antonio, I can't remember which, and saw some detail work on a Mike Midkiff designed Ki-61 "Tony" that gave me one of those "why didn't I think of that" reactions. It was simple, accurate and absolutely good looking! Richard Adams is one of our up and coming modelers in Texas and has demonstrated his talents on several recent projects. Richard has a vivid imagination when it comes to scale details and construction techniques. He came up with an outstanding way to simulate scale looking exhaust stacks for inline engines, and I would like to share it with you.

Richard uses heat shrink tubing to form the individual exhaust pipes that make a stack. There is some heat shrink tubing on the market that has a flat black finish that works perfectly for this application. And the best part is that you can shrink the tubing over a form, remove the form and have an exhaust pipe shape that looks like the real thing.



How is it done you ask? Well here's how: Richard explained it to me during one of our hanger fly 'in sessions. First you find a piece of brass rod or aluminum wire that is the approximate diameter of the pipe you would like to create. Most hobby shops carry brass rod. I used an aluminum fence tie that was about 1/8th in diameter. Sand or file the end to make it nice and square. Now you will need a smooth-faced hammer and a small bench top anvil of some sort to pound the aluminum against. Place the aluminum wire or brass rod on the anvil and strike it on the end with your smooth-faced hammer. You are trying to flare out the very tip of the rod to give it that exhaust pipe look at the exit opening. Strike the rod or wire on both sides so you have a flattened flare that is even on both sides. This should not take more than two to three strikes to get it right. Grab the end of the flared wire with a pair of smooth-jawed pliers and bend a sight kick in it to simulate the typical bends found in exhaust pipes. Now sand the tip of the wire or rod to smooth out any dents or scratches that may exist.

Your form is ready. Now comes the fun part. Shrink tubing comes in all sizes. Pick a size that slips easily over your wire form. I used 3/16" tubing for my 1/8" wire form. Make sure you dip the wire form into a little cooking oil or soap before you slip the shrink tubing on. Wipe off the excess so there is a thin coat. The oil or soap will act as a release agent. Cut off small lengths of shrink tubing, say about half inch long, and slip the first one on the form allowing about 1/16" to overhang the edge of the form. Now those of you that have used shrink tubing before know that it does not take that much heat to shrink the tubing and it will only shrink so much. Take a lighter or a candle and pass it quickly under the shrink tubing. You should see the tubing respond and start to shrink. Pass it under the flame several times until the tubing is snug around the wire. Now slip the tubing off of the form and you should have something that looks like an exhaust pipe. Trim off the excess material from the overhang and cut the pipe to length. Make as many as you need to create a scale exhaust stack. I find these little exhaust stacks to be quite light.

Once you have an exhaust stack glued together it is time to paint. I use an airbrush to paint everything. It is not necessary for this detail, but it seems to do a better job than a spray can. I typically will spray a light misting of rust red over the exhaust stacks to create a base color. Then I simply spray smoke or grimy black paint over the rust color allowing some of the red to show through. You will be amazed at how realistic the pipes will look. If you really want to go overboard you can glue a small piece of thread along the length of the pipe to give it the welded flange look that will finish off the pipe and make all of your scale buddies fall to the ground in astonishment.

I want to congratulate Richard Adams for coming up with this unique contribution to our detailing repertoire. Keep the great ideas coming Rich –

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