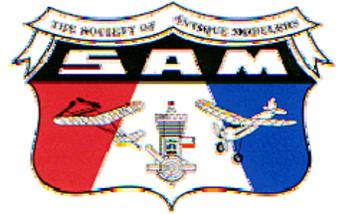




**THE NEWSLETTER OF SAM 26, THE CENTRAL
COAST CHAPTER OF THE SOCIETY OF
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MERRY CHRISTMAS and let's save a tree once more by accepting this newsletter as a greeting from all of us to all of us.

OUR CHRISTMAS DINNER MEETING at the airport Radison Hotel worked out well again this year, thanks to Jim Bierbauer who set it up. Our modest sized group was most of the crowd on Sunday evening, so we had good food and excellent attentive service.

OUR NEXT MEETING will be at Jim Bierbauer's on Wednesday February 16.

DUES TIME: Dues for 2011 should be sent to Treasurer Jim Bierbauer at his address above. Please make your check for \$15 payable to SAM 26. You won't find a more painless dues structure anywhere. Remember, this is your first, last, and only chance to do it now.

ELECTIONS WERE HELD back in October, but they were so spectacularly uneventful we forgot to mention them earlier. All incumbents simply kept their seats.

THE MEMBERSHIP ROSTER usually gets published in this edition, but it takes up a lot of valuable white space, and apparently not many keep it for reference anyway. So we'll skip it this time and just mention that we have 54 paid members, not including exchange editors. The roster will be available on request for any who find it handy. If you've received this newsletter it means you're listed, at least for now, until we begin mercilessly slashing names of those procrastinators who haven't ante'd up for 2011.

WE WELCOME new member **Roy Hanson Jr.**, from Chatsworth CA. Roy is a free flighter who likes CO2 powered ships and enjoys flying at Taft.

ED HAMLER is apparently recovering well from a scary situation. He was on a flight to Jacksonville Florida to join his wife Mary who was there settling affairs of her sister who had passed away. He suffered a heart attack on the flight but was fortunate to have a doctor on board who attended him while they diverted the flight to Atlanta. There, at the nearest hospital, an ER Doctor happened to specialize in the use of stents, so he installed one in Ed's clogged artery.

Ned Nevels sent us this information, and also let us know that Ed was expected to be back on his feet within a few days to pretty much resume normal activities.

Our condolences go to Mary and Ed on the loss of her sister, along with wishing Ed a quick and complete recovery. Ned says he and Ed hope to attend the upcoming SAM contest together at Eloy AZ, January 15-17.

FITTING IT INTO A COWL.

When installing an engine inside of a cowl, I discovered a problem with the needle valve. I needed to add an extension, so needle adjustments could be made with the cowl installed. This particular needle valve did not have a hole in the end and set screw like others, so an extension rod could not be used. My solution was to solder a small nut to the end of the needle valve. Through a hole in the cowl, the appropriate sized screwdriver-type nut driver can be inserted to make adjustments from outside of the cowl. Be sure to roughen the surfaces to be soldered for good adhesion. **Bobby Wright**

LOCTITE makes threadlocker products for many different applications. The more common codes are given below. All except #272 break down at 300 deg. F. The ones shown in bold are the most common.

222/222MS (purple) low strength

242 (blue) medium strength

243 (blue) medium strength, oil contamination tolerant

290 (green) medium-high strength, low viscosity, wicks into threads, not for use with loose fits

262 (red) high strength, generally requires heat for removal

271 (red) high-very high strength, generally requires heat for removal

272 (red) high-very high strength, high temperature tolerant (up to 450 deg. F), generally requires heat for removal

277 (red) very high strength, for large bolts over 1" dia. generally requires heat for removal

Loctite "Form-A-Thread" is also an excellent product, which can re-thread low temperature bolt holes in aluminum, steel, and magnesium. I recently used it to tighten up some loose threads in the magnesium case of a Bantam. **Christopher J. Mikesell**



Use this circle cutter to make gaskets for the front plate of your O&R, back plate gaskets for other engines or whatever. Ned Nevels sent word they can be found at Michaels or Jo Ann craft stores.

AERO SPORT 5 RADIO: Dick Fischer needed another 2.4 GHz Airtronics receiver. They cost 50 bucks, but he found that Hobby People had the identical receiver plus a transmitter for the same price. He says:

“I got my Aero Sport 5 transmitter today, with its companion 5 channel Airtronics receiver. This was a deal where an extra ATX receiver costs \$49.95 but you buy transmitter and receiver as a set for the exact same price. Guess you would call that a "free" transmitter.”

Over the internet Dick learned that Hobby People list the combination \$10 higher, but they often give the lowest price if you ask for it during a telephone deal. It was SKU # 438140 and manufacturers PN 90150.

But price aside, Dick says the transmitter has the older and more desirable (for our purposes) slide trims rather than the newer digital trims. It's a low end transmitter with dry batteries and needs only four cells. (Batteries not included).

He says: “The receiver says Airtronics on the case and has the same part number as if you had bought it in an Airtronics set. It's advertised as full-range, so I guess that's fine. The transmitter looks like any other plastic case R/C transmitter with the usual 4 channels, adjustable stick length, plus a toggle switch for a 5th channel.”

“The only "advanced" features are switches for servo reversing, and to select V-tail or elevon mixing. The battery compartment is set up to receive 4 AA pen cells, but the instructions say you can install NIMH AA cells. The charge receptacle is already built into the transmitter. There's no charger provided, but they sell it as an option. It looks like a standard Airtronics charger.”

Dick brought the radio for show and tell at the flying field. I liked what I saw, except for the snap-in battery setup. I feel all snap-in battery holders are accidents waiting to happen. How often have you had to shake a flashlight to get it to work?

Dick's current Email message says: “Remember you expressed some reservations about the snap-in battery holder? Well, today I had the batteries out and when I put them back in the transmitter didn't come on. I fiddled with the batteries a little and the TX came right on. Suspicions confirmed! I agree that before using it in an airplane of any value I'd put a soldered-up battery pack in it. I did install the new radio in my 1/2A Taylorcraft today and plan on test flying it Saturday. Dick.”



Here's Dick launching his 1/2A Scale Taylorcraft at the John pond event at Taft. Steve Remington times. Jake Chichilitti at right flies with Dave Lewis timing.

As I write this it's Friday December 17 and it looks like Dick's new radio test will be put off due to weather.

Here in Sunny California, we've already lost at least three of our regular Saturdays to weather this year alone.

O&R TUNING TIP # 23: Keeping the fixed point fixed. By Bob Angel

This question arose on SAM Talk which reminded me that it's been a while since we've slipped in an O&R tuning tip, so here goes:

The question was: My fixed point frequently comes loose. How can I prevent this?

First, use hard (not squishy) insulating washers, such as the original ones supplied by O&R. If you're only using one nut to secure both the point and the wire lug, add a second nut with the lug captured between the two nuts. But before adding that lug and second nut, snug down the first nut with a drop of Loctite. Finally, use a plastic zip tie near to the timer to keep the point wire from vibrating.

O&R TIP #24 - PROPER MOUNTING: I recently had my own O&R problem when an old pressed steel engine mount cracked. In order to duck any blame, I'll mention that it was on a ship I'd won some time ago at a Schmidt Ranch event. It came complete with and O&R 60 that needed a little help itself before I ran it. But that's another story.

The mount was a pair of those pressed steel ones that were sold as aftermarket items specifically for Super Cyclone engines. The mounting holes came drilled specifically to fit the Cyke. They don't fit the O&R without modification. But in this case there had been too much modification. There were oversize holes, plus extra holes not needed for either engine, as if other engines had used these mounts. This produced weakness at the point of breakage.

Another contributing factor was that the O&R engines do not have a flat mounting surface on their lug bottoms, unlike, say a McCoy. They left the factory "as cast" with a slightly rounded bottom and a casting seam right between the mounting holes.

Fortunately I had an unused set of those Super Cyke mounts in my collection of stuff. I used a small conical diamond tipped rotary tool to enlarge the holes just enough for the O&R. Then I flattened the bottom of the O&R lugs with a safe file. A safe file is one that has no teeth along the sides, so you can use it in close quarters without marring anything alongside the surface being worked.

In this case, the two problems probably worked together to crack the mount. But regardless of the mount used, it's a good idea to flatten those lug bottoms on the O&R. At the very least you can carve away that casting seam rather easily with a curved X-acto blade.



This illustrates both the tips above. The plastic zip tie at the aft end of the red point wire reduces the wires vibration but still lets the timer move for adjustment.

The mount is the pressed steel one that came drilled for the Super Cyclone engine. The mount came as a set of two pieces which are mirror images of each other.

I made the tank for alcohol use from an old 35mm plastic film container. It holds 30cc. The filler is a brass tire stem with a standard screw-on cap and a small vent hole in its center.

BROWN JR TANKS: Cecil Cutbirth says:

"I found a fuel tank for Brown Jr., 1 oz. good with gas and oil (*and alcohol – ed*) It's Cake frosting coloring container from Wal Mart sells for \$1.50 - same threads as the Brown tank - Beats \$25.00. Cecil"

MODEL BUILDER ON DVD: Sam Speaks Editor Roland Friestad has copied all 255 issues of the magazine onto a set of two DVD's. He's offering the sets for \$75 postpaid. Check, money order, or Paypal to cardinal.eng@grics.net is OK. Or mail to:

Cardinal Engineering
1640 N Kellogg Street
Galesburg, IL 61401

BURNIS RAY, who supplied lots of old engine parts, has passed away. He had a catalog called "Parts is Parts". His son, Kyle, is trying to maintain the business. There is no catalog or Email right now. People can send requests to him at:

Kyle Ray
6027 W. Ken Caryl Place
Littleton, Colorado,
80123-7086

He'll be happy to accept phone requests for parts at the old phone number:
303-979-7517

This information was passed along by Tandy Walker.

FLYAWAYS: Mike Myers sent this message which I've heavily edited for brevity.

Mike's Speed 400 Scientific Coronet was doing great at our last Taft contest with Jay Higgs timing. Mike says:

"At 11 minutes I was the heck and gone up in the cloud base off to the west of the field. It was time to come home, but I needed to spin her down to get out of the lift; somewhere along the way the Coronet crossed the path of another plane being spun down --and Jay and I proceeded to fly the "other plane". The Coronet didn't make it back to the field.

After hiking out looking for it for a couple of hours I gave up. Later at home, I got a phone call from a fellow named "Richard" in Taft. He'd found the Coronet. I went back up and picked it up. Actually I met Richard over at Pumpkin Corners on the Highway 99/Taft Highway 119 intersection.

He's a nice young guy in a new pickup truck with a nice wife/girlfriend significant other. I gave him \$60 which he said I didn't need to do. Well you do need to do it for the "encouragement of others". I want oil field workers to look on lost models as an opportunity to collect a reward. It encourages them to look.

I didn't have a phone number on my model--but I had an address label stuck to the horizontal top of the windshield. Richard looked me up on the Internet!"

LOCALLY, and more recently we had a similar event at our Drum Canyon flying site. A brand new small electric ship with a limited range radio apparently ran out of range. A pre-storm South wind took it to or beyond the highway to our North.

A thorough search by the whole gang didn't find it and we decided it had probably been picked up off the highway and stolen away. A couple weeks later one of the farm workers brought the damaged remains back, saying he'd found it way out in the field beyond the road. Jim Bierbauer handed him \$20 and he was quite pleased. Jim used the same reasoning, that it would encourage future returns. The ship's owner wasn't there that day but later reimbursed the twenty to Jim.



KLETT HINGES: Here's how Tandy Walker installs those two piece hinges. It's also the way I and probably others have always done, so naturally I think it's a bright idea. By inserting the long piece of music wire before gluing them in place, you are assured of a straight no bind alignment. When you install the other halves, you still use the wire and slide everything into place before gluing them in.

And many of us retain the long wire instead of the individual short ones, so the halves can be separated later for maintenance or repair.

DOPE SUBSTITUTE: This came across the internet:

I was at an indoor flying session last night and one very nice flying tissue covered model had a different finish:

He used future floor polish instead of dope. Use it full strength to attach the tissue to the framing. Or, use UHU glue stick for adhesive. Shrink tissue as per normal. Cut floor polish 50% with water to paint tissue as though using dope. It's not quite as sticky as dope when applying to the frame, but doesn't smell like dope.

EARLY ESCAPADES: Van Wilson, our SAM 26 representative in Alaska shares this learning experience as a lad:

"My test stand was a board mounted in dad's bench vise. Put 3 flat washers behind the prop. Center one a bit smaller diameter than the front and rear ones. Filed a notch in the rear one for the knotted end of the string. Wound string around the center one to act as a pull cord to start an old O&R. Worked *kinda* O.K. on the bench. But, on the model, it just ripped the engine outta the firewall. Van..."

Van may have been lucky he didn't have even more "experience" to share. Using a bench vise for a test stand, even with the board clamped in tight is risky. For some reason that hookup has a way of shaking itself loose and becoming a bit hazardous as it flies around a room with engine running. I've never actually seen that happen, so it's just reasonable sounding hearsay. But I have watched a 2 X 4 board test stand come loose at the flying field when held to a wood bench using C clamps. Those wiggly C clamp handles can set up a sudden bad vibration, which rattles the clamp loose. It happens so quickly that you barely have time to reach through the spinning prop to try to tighten them.

BALSA PRICES: Kit maker Bob Holman writes: “Received the invoice from one of my suppliers and his cost of balsa has gone up about 30%. Said it was because of China buying balsa for the wind machines. The wood from Bud Nosen went up a few months ago, not sure if it will jump in price again.
Bob Holman.”

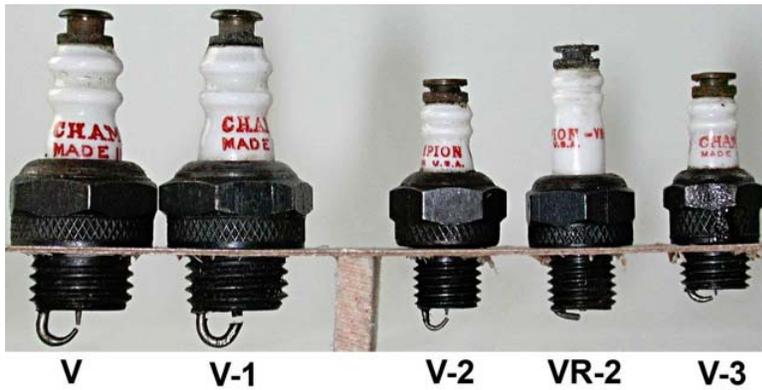
MAKING SMALL WHEELS: Bill Schmidt sent this picture. It pretty much tells the story of how he makes neat wheels for small ships. The furniture knobs he buys have pre-drilled center holes, so the accuracy is built in. Just drill on through, and saw off the part not needed. Then use a short wire axle with wheel collars snugged up on each side to prevent axle rotation. Put it in a drill press and finish shaping with progressively finer sand paper.



FUEL FILTERING. “Filter your fuel through a coffee filter into a clear glass bottle.” That advice has come up often, and I’ve used coffee filters on fuel with no apparent problems. I also use fuel filters, and they last a long time without getting clogged.

BUT HERE’S A WARNING from “Hank on the Bay”. “Be careful with that one--I used coffee filters to filter the alcohol fuel we used in our fuel injected dirt track car--I had fuel injector problems--They were clogging up--Using a very strong magnifying glass we found the problem--It was very fine fibers from the coffee filters that you couldn't see with the naked eye--We switched to 8 layers of panty hose and never had another problem .Hank on the Bay.”

ANOTHER WARNING: Never get caught stealing panty hose.



Charlie Reich had this rundown on the different champion spark plugs (At least the more common ones) that were made. There may also have been a VR-1. There were a few with gold plated bodies for show. And glow plugs were made in both sizes. Any that have a "G" such as VG-2 were glow plugs. The designations are on the ceramic on the back side.

MORE MISSING PARTS. According to Cecil Cutbirth, Jack Van Dusen has retired from the Brown parts business. Cecil says: "I had talked to him and sent a check for needle valves and gaskets after a week or so he returned my check and said he did not have the parts and he is retiring. - Cec." I may have run this item before. If so please excuse the senility.



TWIN RUDDER KLOUD KING. 'OL Charlie Reich had mentioned a twin rudder Kloud King. Having never heard of such an animal, I inquired as to its details and origin. Charlie's answer below included a small picture of the rudders' construction which I haven't included here.

"This is built from a Klarich kit that contains plans that state: "Mickey De Angelis' Kloud Queen- drawn by John Pond".

The alternate twin rudders are shown on the plan as per attachments. Not sure if twin rudders were a De Angelis prototype and not shown on his original plans or what? I don't think John would dream this option up on his own, knowing it wouldn't be SAM legal. I'm sure this may be a rare or unknown version. - 'OL Charlie."

So does anyone out there have the real story?

SUB INDUCTION PORTHOLES: You see them on later model Super Cyclones and on Andersons. Two in front and two in back. Their avowed purpose is to add some power by taking in a little extra gulp of air when the piston nears top dead center. But after working with a couple of Andersons lately, I'm beginning to have doubts about their effectiveness.

After bench running an Anderson on FAI fuel, I injected my favorite after run mix of gas 'n oil. I hand cranked it a couple turns to make sure it wouldn't get hydraulic lock when I hit it with the starter to distribute the mix and clear the excess. As the starter cranked, I noticed a lot of the mix spewing out of those portholes.

I repeated the action a couple of times to make sure of what I was seeing. That set the questioning process in motion. When the piston is rising, the holes are sucking in air. But when the piston passes top dead center, it's obviously squishing air right back out again through the same holes.

Those four holes are quite small at about an eighth of an inch diameter. If they did any good why weren't they just made a little larger? Is it possible that the Super Cyke designer put those holes in at the same time other breathing and timing changes were made? And since it was something new, it was probably effective in selling more engines, so the holes stayed. Then the Anderson, being just a beefed up copy of the Cyke, used the same design.

Since the holes are so small, it seems to me there must be at least a little fluid friction involved, especially when some of the intake gets discharged again through the same holes. If they were effective, why didn't other engine makers pick up on it? It would be possible to seal those holes with RTV and do a before and after RPM check. Maybe I'll add that to my big list of unfinished projects, that may never get finished.

Regular sub-porting uses the same principle, but at least it's used with a much larger intake area inside the exhaust port under the raised piston skirt. Hey, maybe we should question their effectiveness also. I notice that sub induction has come and gone with the Cox 1/2A's over the years and they do lots of performance testing. And it's probably not a matter of cost with Cox, just a little adjustment of machining specs.

Years ago, Dick Fischer found that his "Texaco Special" super Cyke could be slowed down by sealing those holes. He was deliberately slowing the Cyke for maximum fuel mileage. But that was a special case where he'd already shrunk the intake area down so much that there was probably a lot of residual vacuum in the crankcase after the intake shaft valve had closed. That meant the holes almost had to be effective, and the ingoing air was on a one way trip.

If anyone has experience here, please let us hear about it. I doubt anyone has plugged those holes for a before and after test, but I'd bet someone has gone the other way and added some holes to update their earlier model Cyke.

PROP DRILLING 101: Dick Fischer sends this:

"I learned something interesting about APC props that I will pass along. As you recall, I was concerned about drilling out that 13X4 prop for the McCoy 60. The hole diameter needs to be 7/16" for the nut that I have. So I called APC Tech Services to ask how big the through hole could be. The guy said that 7/16" would be OK structurally, but I should be aware of how the props are balanced. If you look at an APC prop, you will see sort of a boss on the back side of the hub, and also that the hole in the front is a little crude. It seems that the boss in the back is "precision molded" and provides all of the centering on the shaft. The hole in the front may not even be shaft size. So if you drill out the prop to a large enough size to obliterate the boss in the back -- which 7/16 will do -- then you need to carefully locate the center of the boss before drilling and be sure to maintain that center. And whatever you do, don't begin drilling or run a prop reamer through from the front."

GERALD MARTIN, you'll remember, passed away in October. Eut Tileston forwarded this interesting slide show over the internet. It's a musical tribute to Gearald featuring his own fine singing voice and guitar. Gerald seemed to always be surrounded by cameras, so there are lots of good photos. Those with computer access can copy the link below to Google and click on the top item for some good entertainment, professionally executed.

<http://vimeo.com/16048583>

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