

WHAM

NEWS VIEWS AND REVIEWS



Official Publication of the Wichita Historical Aircraft Modelers, SAM 56,
and the Kansas Sunflower Squadron, FAC Squadron #23

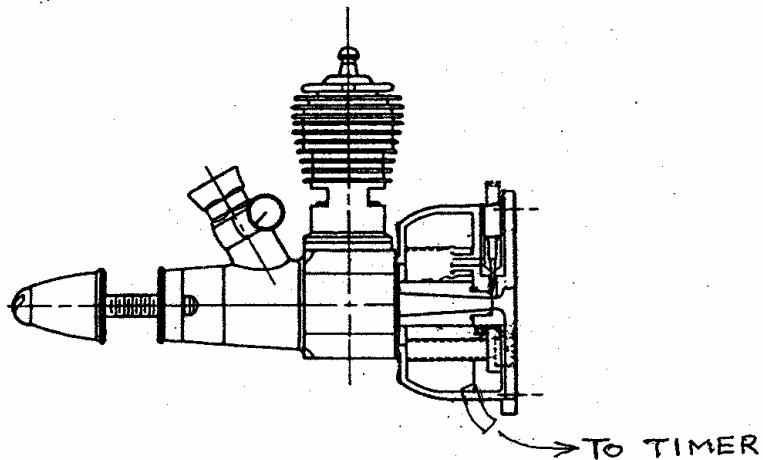
Issue JE-70
Date: 9/08/07

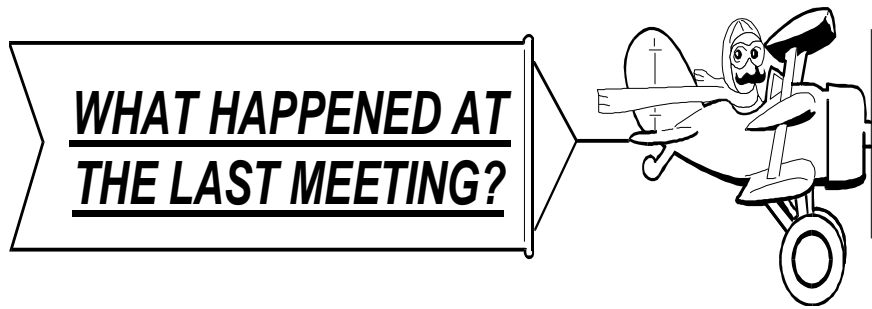
Tee Dee .020 Tank Troubles? — Bill Schmidt

The Cox Tee Dee .020 that is the engine of choice in SAM old timer and NFFS nostalgia events suffers at the hand of its plastic gas tank design. The fuel line attach nib at the bottom has a std. 7 degree draft angle on it to permit extraction from the molding die. Unfortunately this tends to make the fuel line want to slip off of it very easily. The tank to crankcase fit is without a gasket and can leak base compression between these two parts. To check for leakage here put some solvent around this interface and turn the prop. Bubbles will appear around the fit. A leak here will reduce the engine's output. The plastic tank back plate and its attendant gasket are another source of leakage, this time it's raw fuel. If on the flying field you wish to shim some side or down thrust into the model, the chances of a fuel leak are greatly increased. The two hole mounting design isn't optimum for placing shims behind, or for that matter the up and down reciprocating motion of the running engine. Lastly, the plastic material from which the tank is made doesn't hold up too well in the high nitro fuels that we use. It's too bad that production shortcuts / costs etc. got in the way of an otherwise good design.

The solution to these shortcomings is a simple fix. Adapt a Cox Pee Wee reed valve .020 tank and back plate assy. to the back of your Tee Dee .020. The Pee Wee .020 is a common engine that almost everyone has in his engine stash. If you don't have one, your friends do. They can also be purchased from engine guys and on E-bay if you look into it. The tank assy. may be available new from the Cox people themselves. Here's how you do the conversion.

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May 19, 2007 Meeting Minutes

ATTENDEES:

George & Mary Kay Avila, Jim & Marty O'Reilly, Ed & Char Salguero, Tom & Debbie Derber, Bill & Marilyn Schmidt, Les DeWitt, Mary Beth & Ed Ross, Danese & Bill Lindsay, Cindy & Dan Walton.

President Ed Ross called the meeting to order.

The previous meeting minutes were approved as published.

Jim O'Reilly presented the treasurer's report.

OLD BUSINESS:

George Avila reported the field had not yet been mowed. (It has since been mowed and bailed. I talked with the owner a bit last time I was out. He would like us to start minimizing our automobile driving as we been leaving too many tracks all over the field. It impacts the hay yield, so we need to use the established car paths, and keep using our light-weight chase vehicles.)

NEW BUSINESS:

Ed Ross announced he recently received an e-mail from a gentleman named Roy Haun. Roy is vice president of a group called the High Twelve, a group of men who meet for lunch every Monday at the First Methodist Church (3rd and Broadway). He would like to find someone who will come and speak to his group about model airplanes. No one at the meeting volunteered but, if you are interested, you can reach Roy at 688-0931 or, via e-mail, at rhaun1@cox.net.

Jim O'Reilly reported on the Denver MMM contest. There was a good turnout, resulting in a good time. Jim won two events and placed in another.

George Avila gave an account of the 6th Annual KC contest held at the Kansas NASCAR Speedway. SAM 56 did very well with several attendees and several 1st and 2nd places.

George also reported the Seguin, TX contest attendance was down a little, but could have been a result of the wet weather and local flooding that had been occurring.

SHOW AND TELL:

Dan Walton brought in a proto-type V-tail 'Mini Daisy' RC that has been used for electric testing over the years.

George Avila displayed a discus launch glider from a Stan Buddenbohm kit.

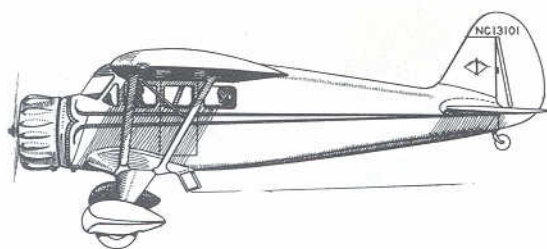
Bill Schmidt displayed two dime scale 16" Taylorcrafts from the Megow plan that appeared in the last newsletter. One was done as a seaplane, the other was done in the standard land operating version.

Tee Dee .020 Tank Troubles? — continued

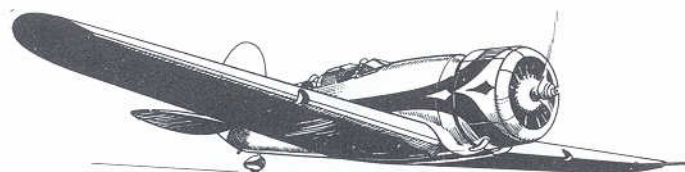
Clean the parts up if they are dirty and assemble the engine to determine where you want the fuel outlet fitting to be located in relationship to your timer. This will be slightly off center at the bottom aft edge of the aluminum tank itself. Carefully center punch this location and drill, starting out with a small size drill bit like .046 or smaller so as not to drift and make a mess of the exercise. The final hole size is to be .082 done with a #45 drill. Now tap this hole carefully with a 3-56 tap and light oil. Take a 3-56 die and thread some 3/32" o.d. K&S brass tubing from the hobby shop about 1/16" long. Cut the threaded end off about 1/4" long and with some Loc Tite thread retainer on it, screw the fitting into the bottom of the tank. I stick it on a needle file for easy aim and installation. Now fill the reed valve area with J-B weld epoxy filler and cut a small circle out of alum. or brass and put it in the front of this area to close it out nicely. I have a lathe and make up a precision alum. pill to fill this area. Now fill the needle valve cavity, the internal fuel pick up nib, and the rear air intake area with J-B weld and you are finished. Use a Pee Wee tank to crankcase gasket on assy. The factory gasket is .005 Vellumoid. This is the paper gasket material obtained at the auto supply but is only available as thin as .010. This will work fine. They say it is 1/64," but if you mic. it, you will see that it's .010 thick. The two top tank fill pipes will be used to fill the tank same as before.

You now have solid, rigid, and non-leaking fuel tank on that Tee Dee .020. Now if you want to add side or down thrust to the engine mount it can be done with the security of the 4 bolt attachment design that the Pee Wee engine gives you.

- Bill Schmidt



STINSON "RELIANT" 225-h.p. Lycoming radial. First of a series of excellent 4-place personal planes by this firm.



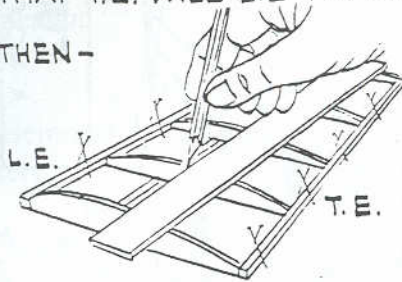
LOCKHEED "ALTAIR" Was a modified version of the Lockheed "Sirius" and had retracting landing gear. It was first to make a nonstop East-West transpacific flight (November, 1934).

THREE WAYS OF AVOIDING WING WOBBLES

METHOD ONE

PIN DOWN LEADING EDGE. GLUE UN-NOTCHED RIBS TO L.E. ADJUST T.E. OF EACH RIB, REMOVING OR ADDING WOOD SO THAT T.E. WILL LIE TRUE.

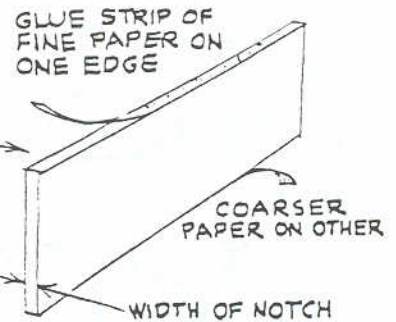
THEN -



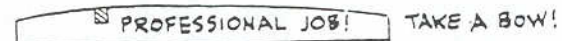
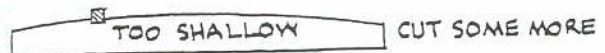
LOOKING STRAIGHT DOWN ON PLAN, MARK SPAR POSITIONS ON EACH RIB USING STRAIGHT-EDGE AS A GUIDE

THEN USE YOUR NOTCHER TO FILE NOTCHES

HANDY NOTCHING FILE USE HARDWOOD TO THICKNESS OF NOTCH DESIRED. MAKE SEVERAL EACH OF 1/32", 1/16", etc.

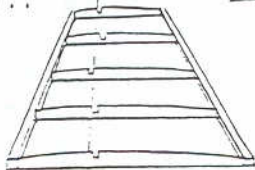


WHEN NOTCHING TRY EACH CUT BY FITTING THE SPAR TO IT. IF NOT PERFECTLY FLUSH, ADJUST CUT.

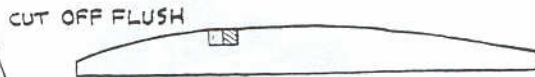
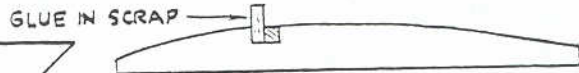


METHOD TWO

NOTCHING RIBS BEFORE ASSEMBLY ALMOST GUARANTEES POOR ALIGNMENT. TO CURE IT...

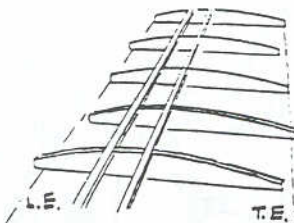


MIS-CUT NOTCH CORRECT SPAR POSITION RIB NOTCHED & GLUED IN

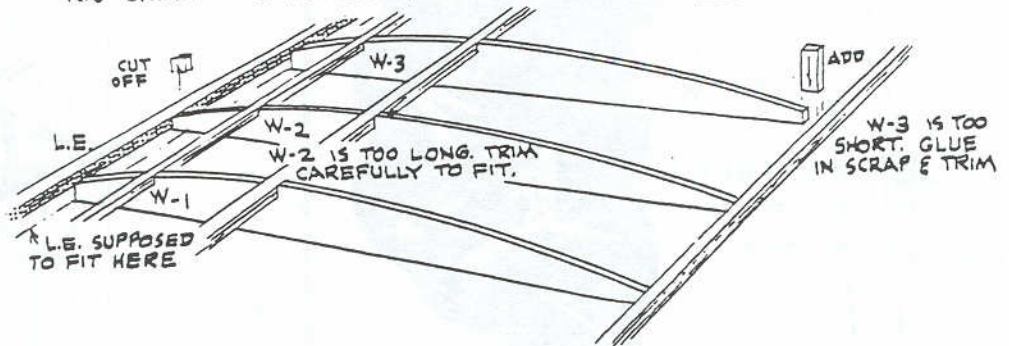


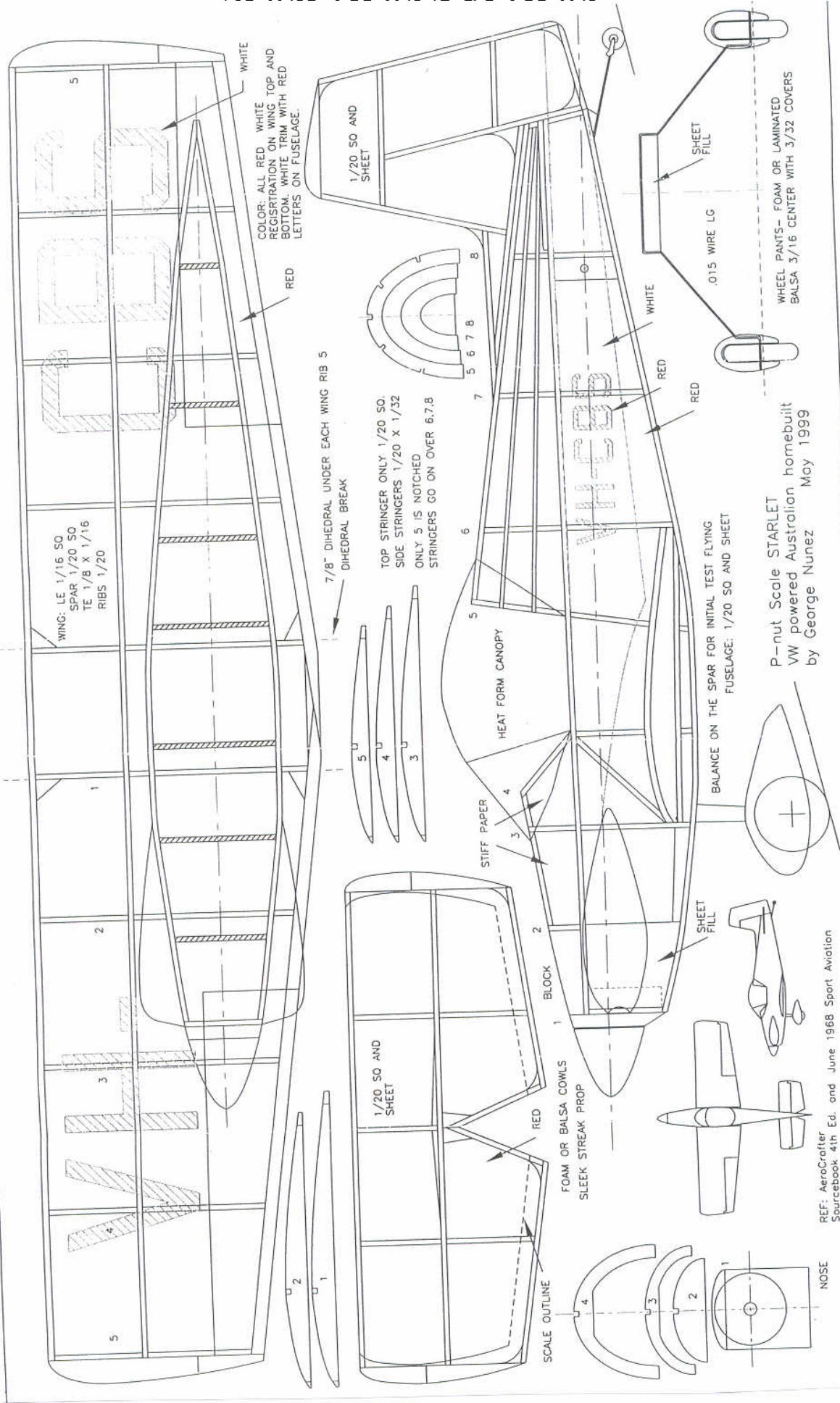
METHOD THREE

NOTCH EACH RIB AND PIN IN PLACE OVER PLAN. RIBS SHOULD BE FREE TO SLIDE BACK & FORTH. LINE UP ALL NOTCHES BY INSERTING SPARS.



FIT L.E. & T.E. TO GOOD STRAIGHT FIT BY SANDING OR CUTTING RIB ENDS. IF GAPS OCCUR, FILL WITH SCRAP. DO NOT FORCE FIT!

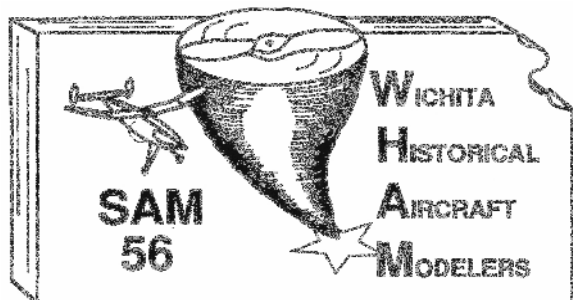




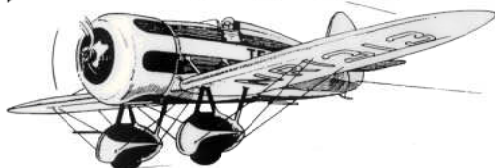
P-nut Scale Starlet
VW powered Australian homebuilt
by George Nunez May 1999

At 75% Full Size

REF: AeroCrafter
Sourcebook 4th Ed. and June 1968 Sport Aviation



FLYING ACES



**Sunflower Squadron
Wichita, KS**

Date: 9/08/07 ISSUE JE-70

→ The next SAM 56 Dinner Meeting will be at:

Cortez Mexican Restaurant 344 W. 29th St.

Saturday, September 15, 2007
Social Hour @ 6:00 PM, Dinner @ 7:00 PM.

**Upcoming Events:
September 15-16,**

fly SAM 1/2A Texaco R/C, SAM 1/2A Scale, SAM LER R/C, WHAM Rubber Scale (30" Max Span), SAM Small Rubber Stick, SAM Small Rubber Fuselage, SAM OT HLG, SAM Catapult Glider, SAM .020 Replica

Oct 7-12,

SAM Championships, Las Vegas, NV

October 20-21,

fly FAC Moth, FAC Golden Age Civil Scale, FAC Old Time Rubber, FAC Embryo, FAC Old Time Gas Replica, FAC Golden Age (Civil or Military) Scale Mass Launch, FAC Greve & Thompson Mass Launch, FAC WWII Mass Launch, FAC WWI Mass Launch

→ **Membership Information:**

Open to all interested AMA members, founded to encourage and promote the model airplane building hobby.
Member dues \$20 annually, Subscription only; \$12 annually, \$18 foreign.
Send checks to Jim O'Reilly, 4760 Battin, Wichita, KS 67220.
All memberships and subscription renewals are due January 1st of the new year.