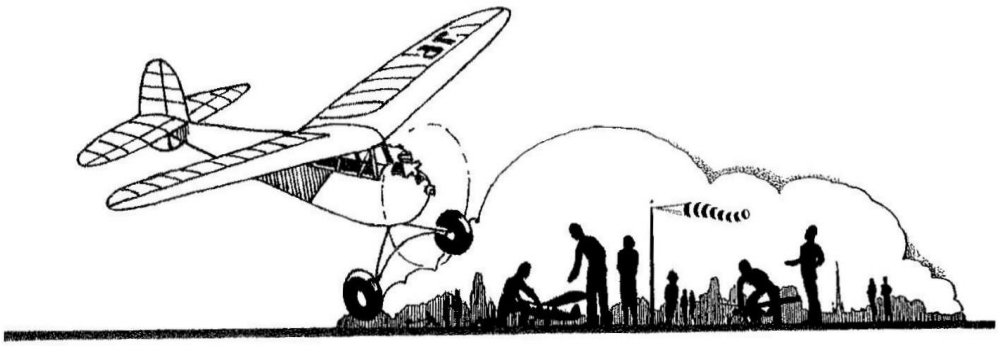


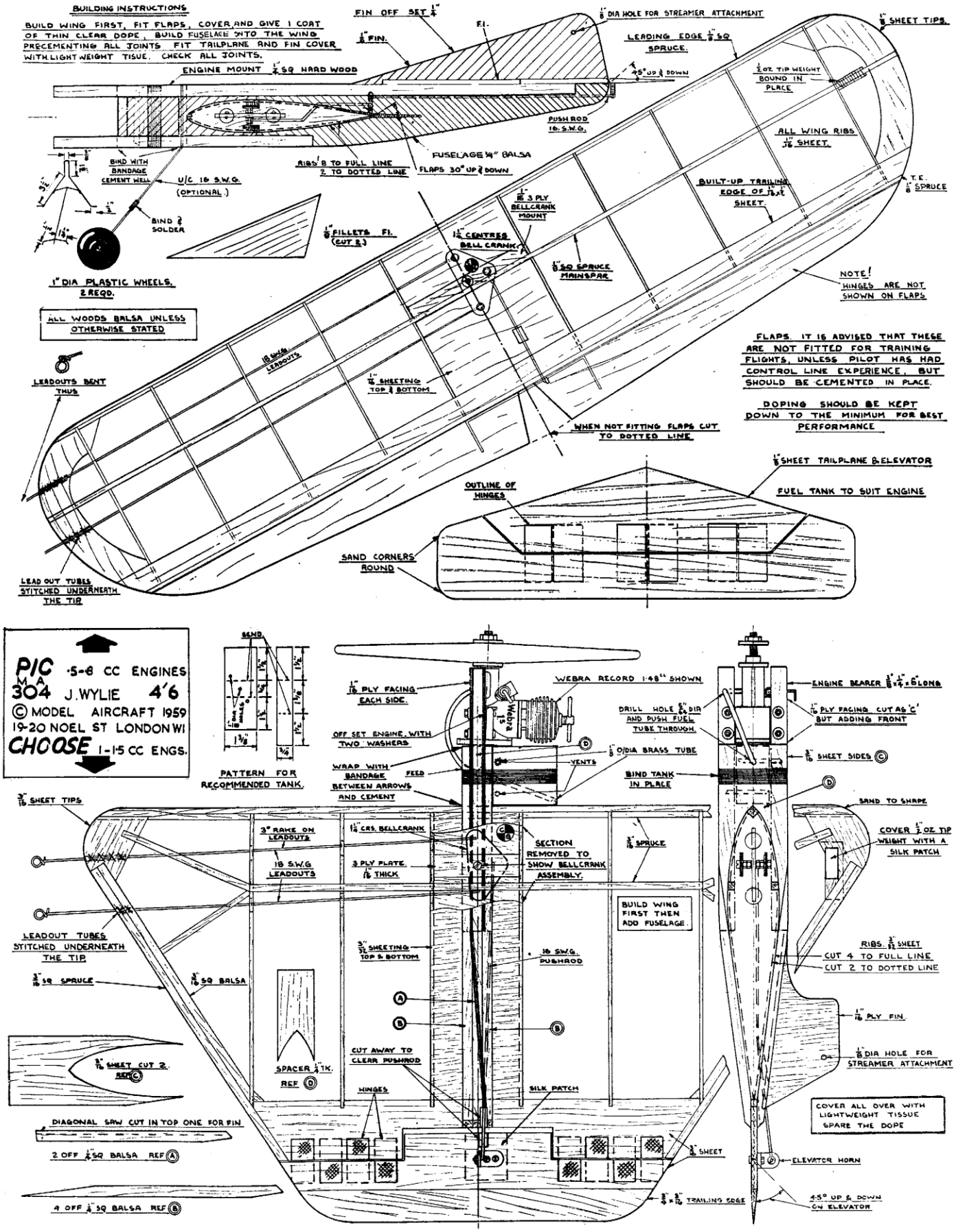
Sticks and Tissue No 103 – June 2015

If you can contribute any articles, wish to make your point of view known etc please send to or phone 01202 625825 JamesIParry@talktalk.net The content does not follow any logical order or set out, it's "as I put it in and receive".

Thanks to Mark Venter back issues are available for download from http://www.cmac.net.nz

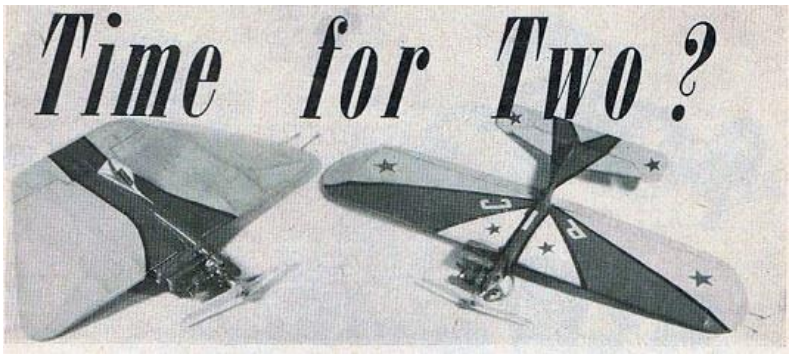
Writings and opinions expressed are the opinion of the writer but not necessarily the compiler/publisher of Sticks and Tissue.

Another great picture from Switzerland sent by Peter Renglli taken by Urs Brandt



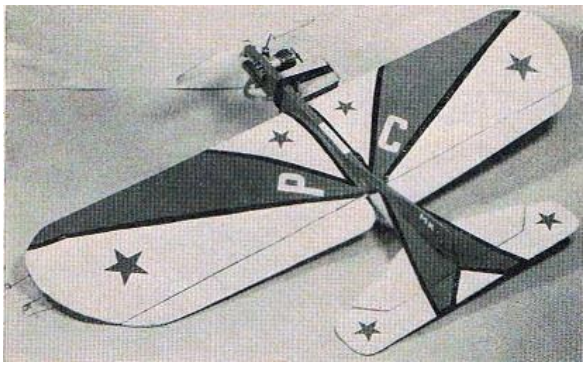
From Model Aircraft March 1959

Or only if you wish, but a newcomer to C/L flying couldn't make a betetr choiuce than PIC or CHOOSE, or both! Simple, cheap, robust and easy to fly, J Wylie's double attraction will appeal equally to any C/L addict.



When the club budget time came around we were amazed to find how much had been spent on model building. If funds get low something has to be done, so obviously something cheap is wanted, yet giving the fun of combat and stunt flying. Pic and Choose are the answer.
Pic has done very well indeed with a selection of engines, e.g., Dart, Merlin, Mills 0.75, etc., but the best power plant, in our opinion, is the diminutive Webra Piccolo. With this motor it proved to be extremely fast, highly manoeuvrable. yet robust enough to do a wingover on to a tarmac playground with only a split fuselage, and shattered tissue to show for it.
Choose was designed with the same objects in mind as for Pic, but for larger motors, in this case 1-1.5 c.c. It is just as easy to build, but a little more rcsponsive to fly, though still remaining an ideal beginner's combat, stunt design.

PIC



If you are looking for something cheap, rugged, simple, highly manoeuvrable, and able to do "the Book" in the hands of the right person, why not try Pic? Construction is straightforward—even the club's biggest idiot managed to complete one successfully, and even fly it! Pic has gone through five different Mks. each one better than the last! A bomb-site in South London provided a flying ground or combat field, as the case may be, and when flying commenced the design became popular with the club, most of the members building one or two.

Construction

This begins with the wing. Eight ribs are cut out to the full line, two ribs to the dotted line, as shown on the plan ; these two ribs are the centre ones. Take four ribs and drill holes as shown, so that the leadouts can be threaded through. The wing is then built in the ordinary way, and completed by adding the tips, stitching the leadout tubes in place, and cementing the tip weight firmly in position.
The bellcrank is mounted on two pieces of ply (1/16 in. thick x 1/2 in. wide—length to suit distance between centre ribs) awl secured with a 6 B.A. bolt and nut (as shown). This assembly is firmly cemented in place. Hook up the leadouts and push rod, fit flaps, hook up, then ensure that the flaps are giving the same movement 25 deg.-30 deg. each way (up and down). Finally sheet in the centre section top and bottom, cutting a hole to clear the push rod.

Flying

The model was flown on 40-45 ft. lines with a streamer to S.M.A.E. specifications. It is fast with a 1.5 and highly manoeuvrable, so be careful.

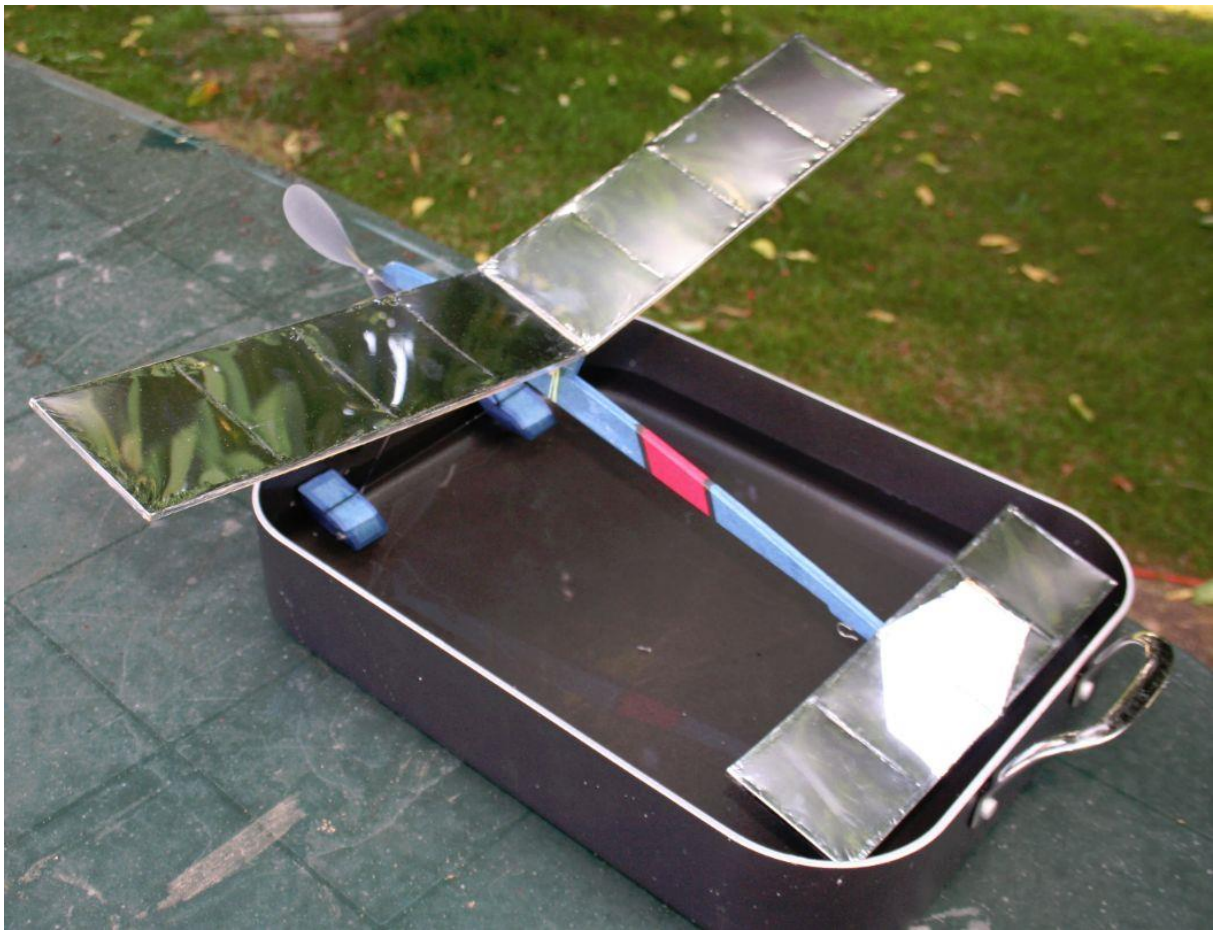
CHOOSE

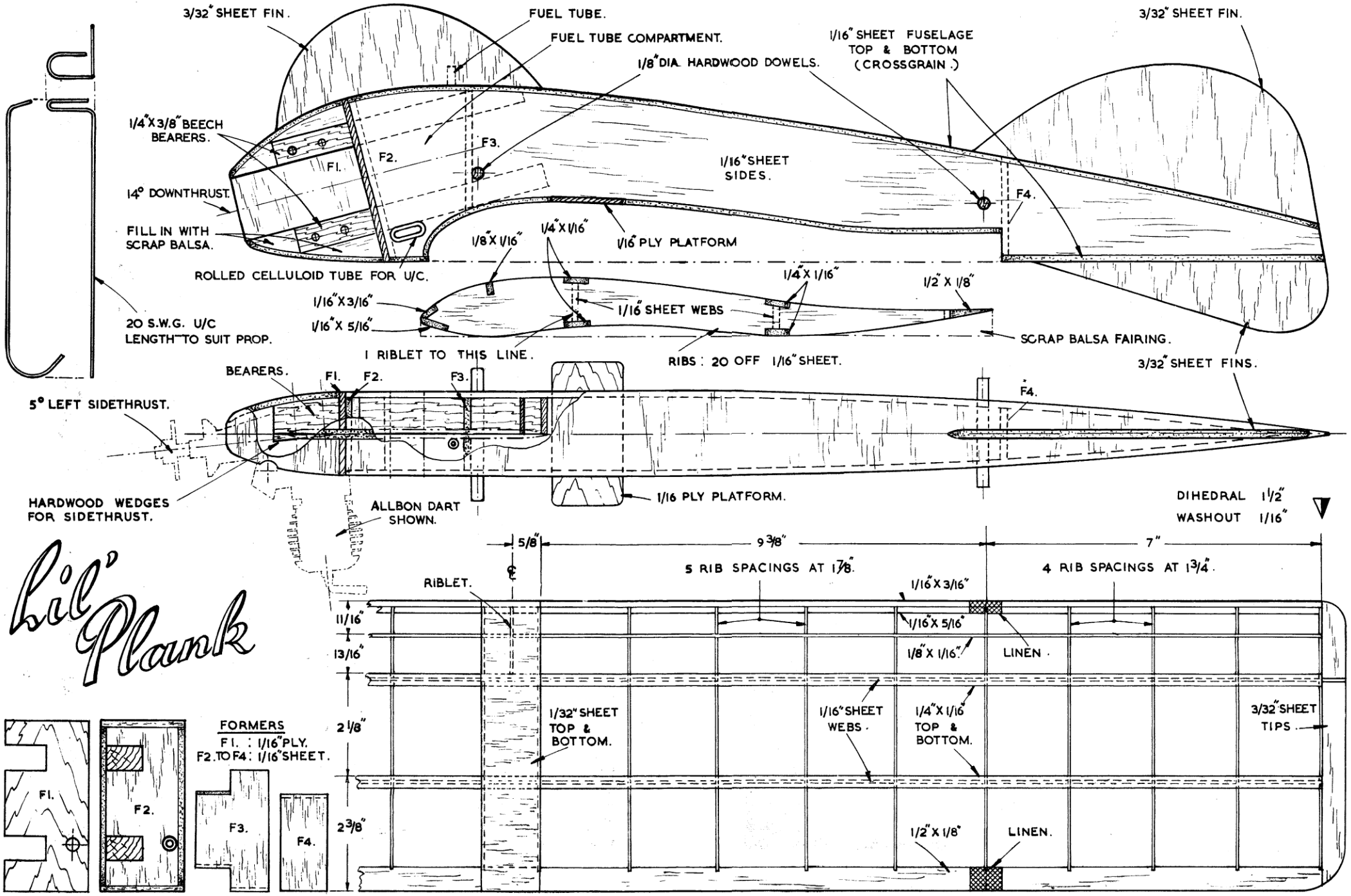
Build the wing first (some of the construction notes for Pic will apply) and when completed add the bellcrank assembly, hook up the push-rod and leadout, then sheet in the centre section When dry cut holes in the top and bottom for the engine bearers, cutting a notch to locate on the spar. Fix "D" between the bearers before the cement is dry.
After the bearers are secure on the wing, add the ply facing (cut as "C" cut adding front piece), then add "C." After this, cement "A" and "B" in place cutting the slot for the fin in the top one—ref. "A "—add the

fin, sand down, then cover with tissue. Finally, remember to keep the dope down, as too much will ruin the performance; also keep the controls as free as possible.
The fuselage is Cut from 1/4in. thick medium balsa. Note that the fuselage is built in two pieces, one half pushed on from the front and cemented well, the other from the rear and cemented well. The bearers are cemented, one on top running right along to the tail, the other on the bottom. Wrap bandage around the nose and cement (this stops the nose splitting). Fit the tailplane, cement well, and add the fin giving ¼ in. offset, then add the fillets, and hook up the controls, making sure that the elevator gives the same movement each way (about 40 deg. to 45 deg.). One does not use all the movement when flying but it comes in handy for those last minute pullouts.
Cover with lightweight tissue, giving two coats of thin clear dope, and one of thin sanding sealer; sand lightly when dry—fmish off with two coats of thin colour dope. Do not add too much as this will affect the performance. You now have a tough little model capable of a surprising performance and hours of fun.
When flying, the u/c is optional but it comes in handy for landing on hard ground. Mount the motor with two washers under each front bolt hole in the lug giving out-thrust. Fit tank by binding in position.
Flying
The lines used are approximately 30 ft. long and these are just right for combat flying with a 1/2 in. X 3 ft. streamer, plus 2 ft. of thread between model and streamer. It is recommended to fly over grass as one can often do a wingover straight on to the ground, and get away with only a few tissue splits (but it is not recommended—it does not always work).

From George Stringwell

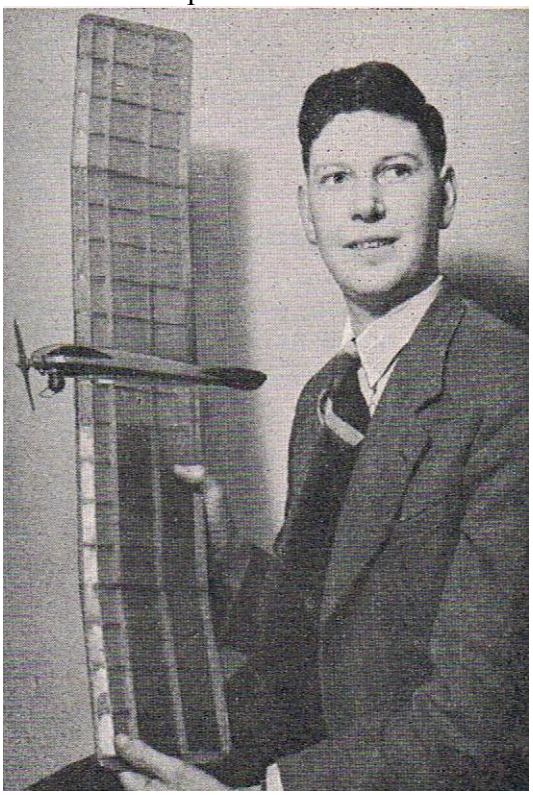
Here are a couple of flying photos of the Bandit for your next issue and also one of the little Vic Smeed Merbaby rubber model I built for the RCG "Soar or Splash" build off by way of relaxation from electric R/C undergoing "floatation tests". The flying surfaces on this latter model are covered in 10 micron metallised mylar, rest in tissue and dope.




3/32" SHEET FIN.
FUEL TUBE.
FUEL TUBE COMPARTMENT.
1/8" DIA. HARDWOOD DOWELS.
1/16" SHEET FUSELAGE TOP & BOTTOM (CROSSGRAIN.)
3/32" SHEET FIN.
1/4" X 3/8" BEECH BEARERS.
F1.
F2.
F3.
1/16" SHEET SIDES.
F4.
14° DOWNTHRUST.
FILL IN WITH SCRAP BALSA.
1/8" X 1/16"
1/4" X 1/16"
1/16" PLY PLATFORM
ROLLED CELLULOID TUBE FOR U/C.
1/4" X 1/16"
1/2" X 1/8"
1/16" X 3/16"
1/16" X 5/16"
1/16" SHEET WEBS
20 S.W.G. U/C LENGTH TO SUIT PROP.
SCRAP BALSA FAIRING.
1 RIBLET TO THIS LINE.
RIBS: 20 OFF 1/16" SHEET.
3/32" SHEET FINS.
BEARERS.
F1.
F2.
F3.
F4.
5° LEFT SIDETHRUST.
HARDWOOD WEDGES FOR SIDETHRUST.
ALLBON DART SHOWN.
1/16 PLY PLATFORM.
DIHEDRAL 1 1/2"
WASHOUT 1/16"
5/8"
9 3/8"
7"
5 RIB SPACINGS AT 1 7/8".
4 RIB SPACINGS AT 1 3/4".
RIBLET.
1/16" X 3/16"
1/16" X 5/16"
1/8" X 1/16"
LINEN.
11/16"
13/16"
2 1/8"
2 3/8"
1/32" SHEET TOP & BOTTOM.
1/16" SHEET WEBS.
1/4" X 1/16" TOP & BOTTOM.
3/32" SHEET TIPS.
1/2" X 1/8"
LINEN.
Lil' Plank
FORMERS
F1.: 1/16" PLY.
F2. TO F4.: 1/16" SHEET.
F1.
F2.
F3.
F4.

Just a wing and a tiny fuselage are all you need to make for hours of flying fun with Lil' Plank designed by Pete Watt for .5 cc diesels From Aeromodeller June 1955

This is number eight in a series of planks and embodies the best features of the previous seven. Designed to be as small as possible and still be safe on an "Alibon Dart" at full revs, it is cheap and easy to build, takes up little space, and is simple to fly without being too finicky over the structure and trimming details.



Build the Wing first so that the fuselage can be made to suit it. All dimensions are given on the plan overleaf which is half-size. Cut out all the ribs, and spars for the wing centre section and cement the two dihedral break ribs to leading and trailing edges and to the two lower 1/4 in. x 1/16 in. members. Cement the rest of the ribs into position together with the 1/16 in. sheet main spar webs and finish off with the upper ¼ x 1/16 in. main spar members and 1/16 in. x 1/8 in. front spar. Build up each wing tip in a similar way by packing tip the centre section to the correct angle and butt jointing the wing tip to it. In order to avoid tip stalling on the glide, about 1/16 in. wash-out can be built into each wing tip. Cement a small piece of reinforcing linen on all the dihedral joints.

Make two 1/16 in. fuselage sheet sides with cut-out to suit the wing, allowing for the 1/16 in. sheet bottom covering on the wing seating. Durofix hardwood engine bearers to one of the sides and assemble fuselage as far as the front bulkhead. Fuel proof inside of tank compartment and place several coils of fuel tube in position before finally sheeting the top. The tube should be enough for 20 seconds run plus starting. Durofix wedges on to the engine bearers to allow for side thrust and drill bearers to suit engine. Cement nose cowling and fins in position. Cover whole model with lightweight Modelapan and apply three coats of dope and one of fuel proofer.

Trinuning

Since a "plank" is rather tricky to test glide, I usually guess the C. of G. initially and start with low powered flights. Before attempting any flights make sure wings are balanced and true to one another, also the C of G should be slightly in front of that shown on the plan as it is easy to move this back when test flying. If test glides are attempted make sure they are over long grass as the gliding speed is rather critical. Initial flights should be made on low power to cheek the glide. If the climb is to the left, open up the power using a little right rudder to keep the tail down. Lil' Plank should climb in a tight left spiral as this is the only way to control a large amount of power. A straight trim will give lovely snap loops and a right trim is likely to make a hole in the ground since there is no tail to counteract the gyroscopic action of the propeller! The whisker type undercarriage gives good take-offs providing you aim carefully into wind. Lil' Plank takes a fair distance to "unstick", but rockets off the ground when full speed is reached. It might be a good idea to use one of these planes to clear a take-off area at contests!

My Comment JP

I know electric is becoming more and more the accepted form of propulsion for our models however looking at various websites for engines there seems to be a real reduction in what is now available. No more Just Engines J'en's for one, many shops out of stock of what was a year or two ago basic stock, are we going to have a problem soon if we want a new motor and from that I guess fuel? Whilst I have models powered by electrickery I could never give up IC.

Anyone else got a comment on the subject?

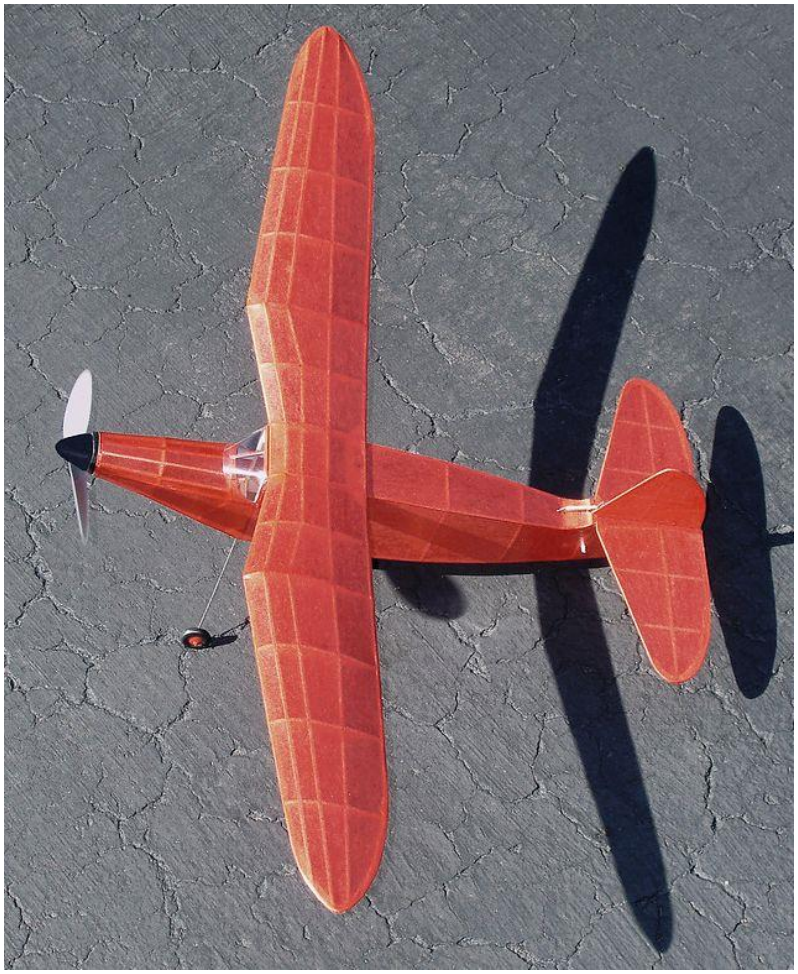
The Fox 049 FAI Special - a rare engine outside the USA...

From Karl Gies

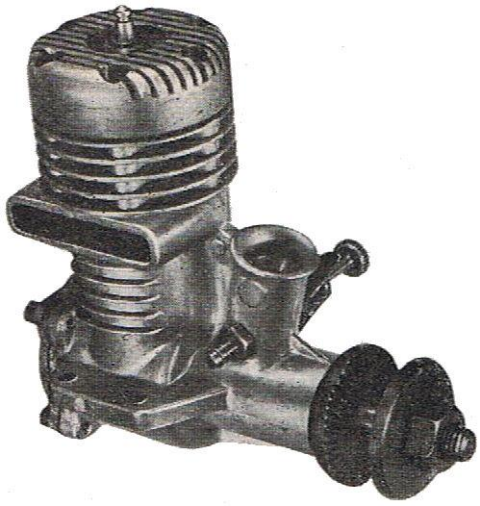
My Simplex after a fine flight hit a rock upon landing and broke the prop. Better the prop than the corned.

The person shooting the picture was not quick enough but you can see the Simplex tail feathers and my wind indicator. Good shot of the Snowy Mountains.

HELP - NO ONE ON THIS SIDE OF THE POND CAN IDENTIFY THIS MODELER. Another in the series of "Who is the modeler, What country is he from with this good flying Tomboy."

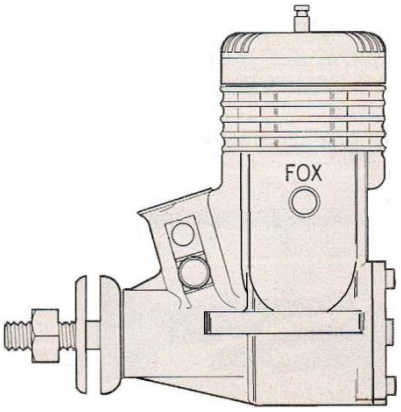


A Great Looking Scientific Ranger from the 35 cent series by Bob Clemens - this fine photo by Clemens



Fox 29X from Aero Modeller May 1958

Basically the Fox 29X has been evolved from the 29R and the Combat 35 engines, all parts being interchangeable with one or other of these models, with the exception of the cylinder head. Unlike the 29R, however, the 29X adopts a conventional layout with normal induction. The 29X is a sturdy, rugged engine with excellent smooth running characteristics and plenty of power. Despite its high output it is an easy engine to handle, is free from marked vibration except at very high speeds, and is also easy to start. The compression ratio appears fairly high and using a doped fuel there is a marked tendency for the engine to kick back when hand starting, with increasing nitro-methane content. With 20 per cent. nitromethane the kick-back is quite noticeable, demanding a powerful flick for starting. A maximum of 10 per cent, nitro-methane would appear about the limit for normal operation with easy hand-starting without decreasing the compression ratio.



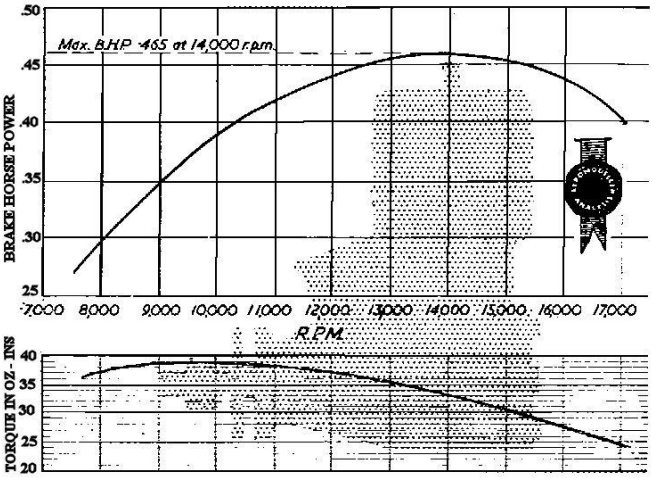
Starting characteristics are exceptionally good, there being no tendency to falter once running. Starting when hot deteriorates with straight fuel, but is again easy with a doped fuel. Due to the good suction, little or no choking is required for starting—except for an initial choke when cold, if only to "degum" and free the engine. All the handling tests were conducted in particularly cold March weather and may not be typical because of this. It is a flattering point, however, that despite near-freezing temperature no trouble at all was experienced in getting the Fox 29X to hand-start on any size of propeller.

Good torque is developed at low speeds, without the engine showing any signs of exceptional power output.

Running is quite steady and consistent but the Fox sounds happier at higher speeds (10,000 r.p.m. and above). At speeds above 16,000 r.p.m. the performance was very steady, although there was a noticeable tendency to vibration. At all speeds the needle valve control is exceptionally non-sensitive, allowing plenty of time for adjustment.

<u>Useful power peak</u>

Maximum power output on test was developed at 14,000 r.p.m., and maximum torque at 10,000 r.p.m. The 29X tends to run quite hot and unless properly cooled with an airstream performance is affected by overheating (e.g. as could occur in a close cowl without adequate venting for airflow through). Fuel consumption is quite high, without being excessively so for an engine of this size.



SPECIFICATION

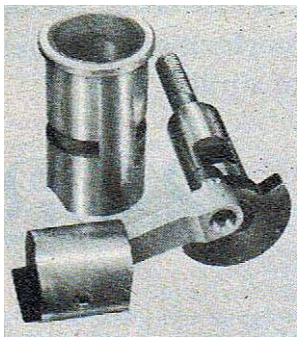
Displacement: 4.896 c.c. (-2955 cu. in.)
Bore: .738 in.
Stroke: .697 in.
Bore stroke ratio: 1.06
Bare weight: 7 1/2 ounces
Max. B.H.P.: .465 B.H.P. at 14,000 r.p.m.
Max. torque: 39 ounce-inches at 10.000 r.p.m.
Power output: .095 B.I-LP. per c.c.
Power / weighc ratio: -062 B.H.P. per ounce

Material specification:

Crankcase unit: light alloy pressure die casting
Cylinder liner: alloy steel

Piston: Meehanite. Connecting rod: machined from 24 ST aluminum alloy. Main bearing: Bearing bronze
Crankshaft: alloy steel, surface hardened to Rockwell "C" '58
Head: light alloy. Spraybar: brass
Manuafacturers: Fox Mfg. Co. Inc.. 5305 Towson Ave., Ft. Smith, Arkansas, U.S.A.

Constructionally the Fox 29X employs a light alloy crankcase casting incorporating the cylinder barrel, exhaust stub and induction tube, into which fits the liner capped by a light alloy head. The only machining operations on the casting are drilling through the induction tube (and inserted main bearing shell), reaming the main bearing for the bronze bearing shell, and the barrel reamed to fit the liner and the top faced, drilled and tapped for the head screws.

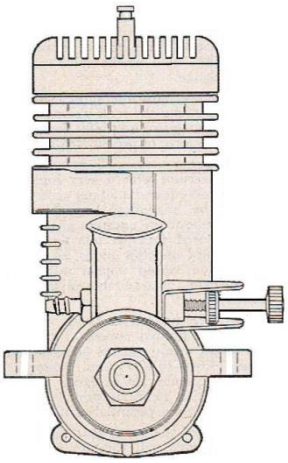


The liner is fully machined from leaded steel, turned, reamed and honed internally and ground externally to a plug fit in the crankcase casting. The top of the liner is flanged and seats on top of the cast barrel with a thin aluminium gasket under the flange. Ports are rectangular, of large area and depth, and milled in the liner walls. The bottom of the liner is ground away in a half-moon shape on the transfer side, presumably for con rod clearance since the cylinder is slightly de Saxe.

The piston is fully machined from a Meehanite billet, ground externally, and is a beautiful job lightened to logical limits. The gudgeon pin is 5/32-in. in diameter, drilled to take brass end pads. To dismantle, the liner must first be withdrawn and the gudgeon pin "fiddled" out through the hole in the rear of the crankcase casting, when the piston falls free and the con rod can also be removed. The latter is machined from light alloy stock and is of substantial proportions.

The head has an annular recess to fit the liner flange into which is fitted an aluminium gasket. Compression ratio can be adjusted by removing this gasket, or adding another, if required. The head is contoured with a cross slot to match the straight deflector on the top of the piston, and is of substantial proportions to eliminate warping or distortion.

The crankshaft is a massive unit, although relatively short in length. It is machined from alloy steel hardened and ground to1/2-in, diameter stepping down abruptly at the end of the bearing length to a 1/4 -in. diameter threaded length. The port is rectangular, approx 3/8 in. x 5/16in., drilled, milled and possibly finished by broaching. The central hole through the crankshaft is 11/32-in. diameter. The crank web is machined away to provide counterbalance and the 7/32-in. crankpin ground to finish (unusual in American engines). The crankpin is also drilled out .120 in. dia. The main bearing is a bronze sleeve force fitted into the crankcase casting.



All the running fits are exceptionally good. It is obvious, in fact, that considerable attention has been given to all the parts that really matter. There was also far less evidence of roughness on the other parts than in some other Fox engines examined. The intake tube is fitted with a sleeve, considerably restricting the diameter, which would appear to indicate that this model is intended for "stunt", "combat", team race (or radio) application. A somewhat enhanced performance could probably be realised for racing work with the sleeve removed, although no tests were made.

Provision is also made for the fitting of a second spraybar assembly for two-speed operation, by drilling through the casting at the appropriate point. The needle valve itself is ingenious in having a "spade" on flat near the end of the taper—presumably to bear against the inner diameter of the spraybar and eliminate any possibility of the needle point vibrating and possibly upsetting the fuel mixture. In view of the extreme non-sensitivity of the needle valve as a control, however, this refinement hardly appears necessary—or may possibly be a major reason for the insensitivity.

Summarising we rate the Fox 29X as an easy engine to handle, one without any apparent vices, sturdy and with an above-average performance for a plain bearing engine of this size. From the engineering point of view, too, it is exceptionally well fitted and a credit to the manufacturer's techniques.

DT timers update E-Zee timers

A few of us met up for a normal flying session at our DMFG site and during the day tried out another of the DT timers. This differs from the first by incorporating addition two oines so that a Pieze sounder can be added. John's Dizzy with the protoype and sounder taped to the model wa sput through its paces. The sounder is to help locate a model which comes down in tall grass, at the site test conditions were ideal in that the hay was getting on for 1.2m high.
With 100 ft bungee set up, DT set and sounder plugged in off went the model, it went with a mind of its own heading North East over a hedge and completely dissappeared from sight. Luckily the field it went over to is about 50 acres of tall hay. What a test.
Several of us went around the hedge and commenced to walk up the adjacent track all listening,which involved stopping and tilting head (Why I've no idea I guess we all thought we were blackbirds). However within a minute a very distant sounding bleeping could be heard. The clarity though of the sound was such that immeditaley you could pin point it direction. Walking nearer obviously the bleep got louder so then it was walking through the hay and listening and watching out for. Amazingly until you literally got within 1 metre (Yes I'm confused I skip from metric to imperial in mid sentence) of the model it could not be seen. The Dizzy had settled down nice and deep in all the dense foliage a brillaint test.
The bleeper was first heard by moi at a distance of about 75 yards and by 50 yards all could hear. I know that doesn't sound far but it is ample. Testing with model not covered by hay as per being up a tree or in a hedge all above ground level the distance of hearing was extended to well beyond 100 metres. The next few flights were very similar.
I personally wonder how you can do withoput them they are bang on accurate as regards time, let off a bleaping noise (The bleaper can be adjusted and John actually found a setting that he found better like tuning into his ear). Also the only friction is at the rear of the model where the grenade opin pulls out so failure is going to be rare. Brilliant piece of kit. Contact Dens Models.

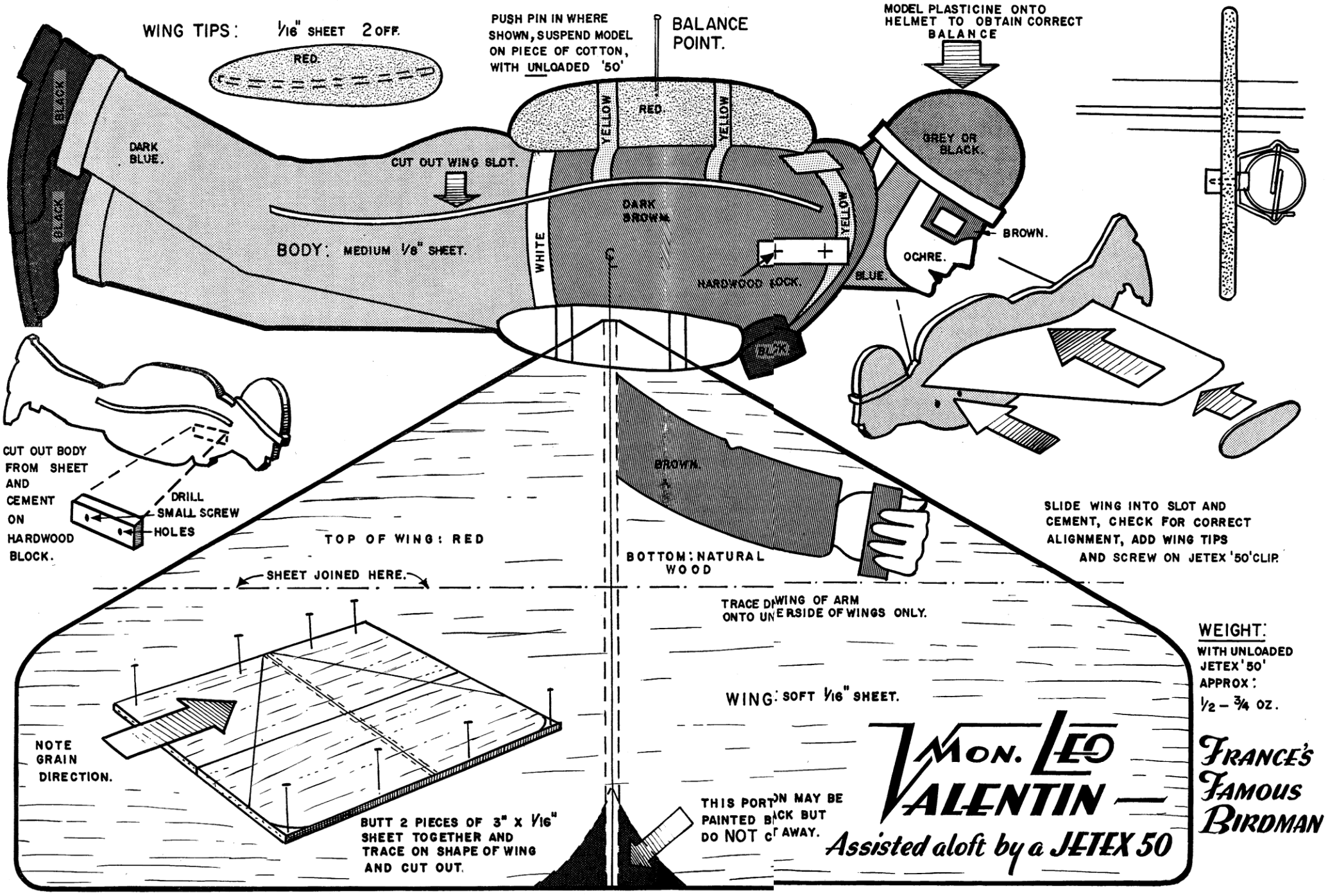
Testing has stopped for next week as the site is being dug up so that a track / road system can be laid in a WSW and N-S direction right next to our grass strip. The works are on going but below are a couple of photos, more rolling is to be carried out although the surface is already hardening with the base of lime slowly curing, could take months, years if ever. At 700 metres long for the first and 50 yards long for the latter and will only be in use for a week or so each year we have no idea what use these could be put to. Not half we haven't!


N – S 52m long

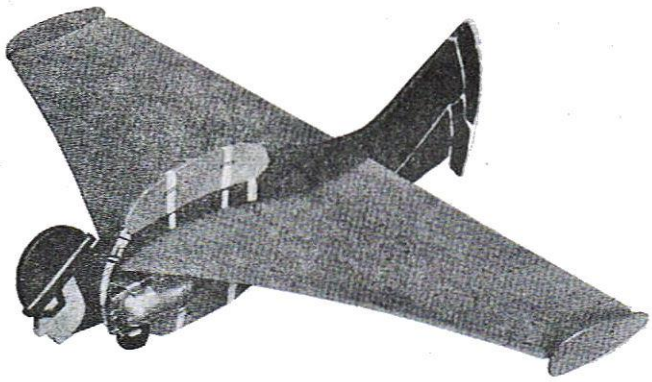

WSW – ENE 700m long

Regards from Sweden Jörgen.

Hi James I to send you pic,s of my Infant sportster with a Little Elfin 0,33 replica covered in tissue over mylar single channel not flown yet.And also a pic, of my so far WEBRA 2,5 Collection two Winners one MACK1 and one BULLY still missing KOMET and MACK 2.


WING TIPS: 1/16" SHEET 2 OFF.
RED.
PUSH PIN IN WHERE SHOWN, SUSPEND MODEL ON PIECE OF COTTON, WITH UNLOADED '50'
BALANCE POINT.
MODEL PLASTICINE ONTO HELMET TO OBTAIN CORRECT BALANCE
BLACK
BLACK
DARK BLUE.
CUT OUT WING SLOT.
YELLOW
RED.
YELLOW
GREY OR BLACK.
DARK BROWN.
YELLOW
BROWN.
BODY: MEDIUM 1/8" SHEET.
WHITE
HARDWOOD BLOCK.
OCHRE.
BLUE.
BLOCK
CUT OUT BODY FROM SHEET AND CEMENT ON HARDWOOD BLOCK.
DRILL SMALL SCREW HOLES
BROWN.
SLIDE WING INTO SLOT AND CEMENT, CHECK FOR CORRECT ALIGNMENT, ADD WING TIPS AND SCREW ON JETEX '50' CLIP.
TOP OF WING: RED
BOTTOM: NATURAL WOOD
SHEET JOINED HERE.
TRACE DRAWING OF ARM ONTO UNDERSIDE OF WINGS ONLY.
WEIGHT:
WITH UNLOADED JETEX '50' APPROX: 1/2 – 3/4 OZ.
WING: SOFT 1/16" SHEET.
NOTE GRAIN DIRECTION.
BUTT 2 PIECES OF 3" X 1/16" SHEET TOGETHER AND TRACE ON SHAPE OF WING AND CUT OUT.
THIS PORTION MAY BE PAINTED BLACK BUT DO NOT CUT AWAY.
MON. LEO VALENTIN —
Assisted aloft by a JETEX 50
FRANCE'S FAMOUS BIRDMAN

The Intrepid Birdman from France Monsieur Leo Valentin "its by that man Ray Malmstrom again" Half a sheet of 1/8 and a sheet of 1/16 balsa – Jetx 35 or 50, cement and dope are all you need for this novel scale flier. From Aero Modeller December 1955



We suppose it is true to say that Leo Valentin, the French birdman leads a somewhat up and down existence. Up in an aeroplane and then down on his wooden wings and a parachute or two. It is also true that such a game needs courage of a very high order, and there must be many of us who would go a long way in order to see this intrepid son of France do his stuff. However, there may be few opportunities of seeing an actual demonstration by Leo himself. But here is a model of him, which when you see it soaring around in the blue, will not only give you a very true impression of Leo himself on the wing, but will also intrigue you by its flying ability. Be the first in your group to fly a "Leo Valentin", He's an eye-catcher believe us. Even fuel-soaked digit-twisted, power bods have been known to look up with interest when Leo was above them, cheerily breasting the upper air!
Just cut out, paint and fIy!
There is no sense in telling you how to build him. He's too easy for the old "sheet of instructions" lark. Just cut him out of sheet, adding the hard wood block, drilled ready for the screws of the Jetex 50 clip. Cut out his wings, slip them through the slot and cement. Add the wing tips, balance by modelling plasticine onto his helmet (it even makes the helmet look more realistic!) and Voila! Leo is ready. Decorate him either with a ball point pen (ultra-quick method) or for a real effect, paint him with poster or powder colours (suggested colours are shown on the plan) using these with as little water as possible. Then when absolutely dry, give a coat of thin, clear dope, putting it on quickly with a really soft large brush.
When Leo lands on his chest on concrete or gravel, he says it makes him feel sore (! !), so please choose some soft grass for test gliding. Providing the balance point is correct, as shown on plan, the glide from shoulder height, should be long and shallow. Due to the weight and thrust of the offset Jetex 50, Leo may bank rather steeply on his first powered flight, probably to the left. Stick a small spot of plasticine onto the outer part of the opposite wing to correct this.
Actually, a steep bank in either direction can easily be corrected this way. If he stalls add a little weight to his helmet. If he fails to climb and seems nose (sorry-head!) heavy take some plasticine off. Well thats your lot!
Take if from the lads who have watched the original Leo - he really is fun to fly. So build him carefully, keeping him as light as possible and you're all set for some flying fun that is DIFFERENT. Vive Leo Valentin! Vive La France! !

From David Turner

I'm selling my AVRO monoplane, which is just two years' old.
You can see it at on Youtube ..... https://www.youtube.com/watch?v=Yj2v34SUi7Y
Also at the start of this video ...https://www.youtube.com/watch?v=Z0ipSD0B4_A
Model, engine and servos, have 10.4 flying hours, with no "incidents".
Servos are Hitec HS 85 metal-geared
Engine is Saito .45
Span is 76". One-piece wing, but the construction is such that it would easily convert to 2-piece ... literally, a few minutes' work. One-piece is more convenient, for me.
Fifty quid for the airframe ... or, £200, complete with engine, servos, battery.
Would make a great electric conversion.

There's a couple of patches on the covering, and the usual signs of use. Still, very flyable. Buuuut, it's a light-weather model, so early morning and summer evenings are to be preferred. It's not for aerobatics; just for bobbing about, looking cute.

Very quick to assemble and take down ... 8 metal quicklinks secure the wing to the fuselage. I guess that it's a bit of a specialist sale, really. Anyway, I need the space ... I can't "do" with being surrounded by model planes, in the garage. Located near to Beverley in East Yorkshire.

Email: springers@springers.karoo.co.uk ... for more info.

Also

Krupp 1937 for sale

Clean airframe in good order... 8-foot wingspan.Two-piece wing, with wire joiners.

It's flying on electric at the moment, but has engine bearers fitted, so it's suitable for a .40 or .45 four-stroke ... which is ample. Solartex covered. Comes with good servos (Futaba 3001) on rudder and elevator, as I recall. Just lumbers about on a whiff of power. Airframe + servos on offer for £70. Will leave in the motor/ESC at cost (£40).

More info by email ... springers@springers.karoo.co.uk

Beverley, East Yorkshire.

Middle Wallop By Tony Tomlin

Sunday 14th June, 2015 was the first successful vintage radio event at, at Middle Wallop, for 2015, the May event having been rained off with Rob Blair starting the good day for vintage R/C fliers at Middle Wallop.

After a chilly start when the gazebo was assembled and the flight line laid out (Thank you John Perry and Rob Blair), a steady flow of fliers started to arrive. Eventually 27 had signed on during the day with around 48 models. For many it was a chance to meet again, since the weather has not been ideal for flying recently.

The flying duly started at 10.00, the sun appeared with a good deal of blue skies and only a slight breeze. As always there was a good selection of models to be seen flying, although unusually for a vintage event there were only 2 Junior Sixties seen. The Super Scorpion seems to be a popular design with a couple often in the air. The largest model was the scaled up Tomboy of Peter Rose, a steady flier, it spanned a little over 10ft. Next in size was probably the Mercury of Geoff Goldsmith with the PAW 80 powered Chatterbox of Tony Tomlin the smallest. David Lovegrove had brought along a very nice Aeronca C3 that flew well and John Mellor was flying one of the more modern designs and Astro Hog that flew in a steady manner. Barry Mourant was flying a Thermal Magnet, a model new to most of us. John Hoyle flew his Bowden Bee and Richard Alford had a very smart Southerner 68.
We also welcomed a new flier to this event, Alistair Tanner, flying a Stinson.

Tomboys in both sizes were present for the popular Tomboy competitions which, after around 8 years of competitions, still have a good following. Not the mass 16+ mass flyoffs of the Halcyon days of a few years ago but still enough to generate excitement for the fliers and spectators alike.

<u>Tomboy 3 and Senior Competitions</u>

Tomboy 3

The entry for the Tomboy 3 competition was down as a number of fliers had problems and were unable to complete the two four minues plus qualifying rounds. Five made it to the fly off, with Rob Blair starting the event. As the board was lowered, all got away climbing rapidly, and soon they were very high. The air became quiet as their engines cut. Tom Airey, who normally finishes in the top three, was out of luck with an off tune engine and was down a few seconds under 6 minutes with Tony Tomlin landing 30 seconds later. Brian Brundell claimed 3rd spot with Paul Netton and James Collis still very high. Paul landed next at 9 minutes 36 seconds, 2+ minutes before the winner, James Collis who had an excellent flight.

Results
1/ James Collis 11 mins 41 secs
2/ Paul Netton 9 minutes 36 secs
3/ Brian Brundell 6 Mins 45 secs
4/ Tony Tomlin 6 mins 30 secs
5/ Tom Airey 5 mins 56 secs

Tomboy Senior

There was a better entry for this event with 9 making the flyoff.
All the flyers who lined up were time served Tomboyists and there was plenty of good natured banter.
As Rob Blair lowered the start board, Richard Alford and Derek Collin were both grounded with engine problems. The others all climbed away, sometimes very close, but without incident. Barrie Collis was out of luck with a poor engine run and was soon down at 4 mins 30 secs, followed by Brian Brundell, exactly 1 second later. Tony Tomlin, who had climbed to a good height, was now rapidly descending, landing a little short of 4 minutes later. Tom Airey, still not having a good day, was next to land, after a further 90 secs. The remaining three were all very high, with Roger Briggs lowest, still returning Tomboy a time of 11 mins

38 secs for third place. Peter Rose and James Collis were now playing a cat and mouse game with Peter at first the highest, then it was all change. Peter had found a hole in the air and passed close to James on his way down as any lift deserted him, finally landing just short of 16 minutes. James landed a minute later, to a round of applause from the other fliers and spectators, after an exceptional flight.

Results
1/ James Collis 17 mins 5 secs
2/ Peter Rose 15 mins 56 secs
3/ Roger Briggs 11 mins 38 secs
4/ Tom Airey 9 mins 24 secs
5/ Tony Tomlin 8 mins 14 secs
6/ Brain Brundell 4 mins 31 secs
7/ Barrie Collis 4 mins 31 secs

Derek Collin, Richard Alford DNF (Non starts)

Shortley afterwards Pam Tomlin presented the prizes to bring to an end a very pleasant days flying.

Pam Tomlin and Silvia Briggs at the control gazebo.

Peter Rose [with beard] with 10 ft. span Tomboy.

Tomboy Senior Competition shorty after launch

Tomboy 3 [36"] line up.

Tomboy Senior [48"] fliers shortly before mass launch

Brian Brundell and Richard Preston 3rd in Tomboy 3.

Photo of James Collis . James is 15 years old and showed all the older fliers how to fly !!!! Winning both classes.

A 27" ROTOR DISC DIA. CONGENTRIC AUTOGYRO FOR .5 TO 1 C.C. (C-D) ENGINES

CONTRA - GYRO

DESIGNED BY

W/cr. Laurie Ellis D.F.C.

3/6

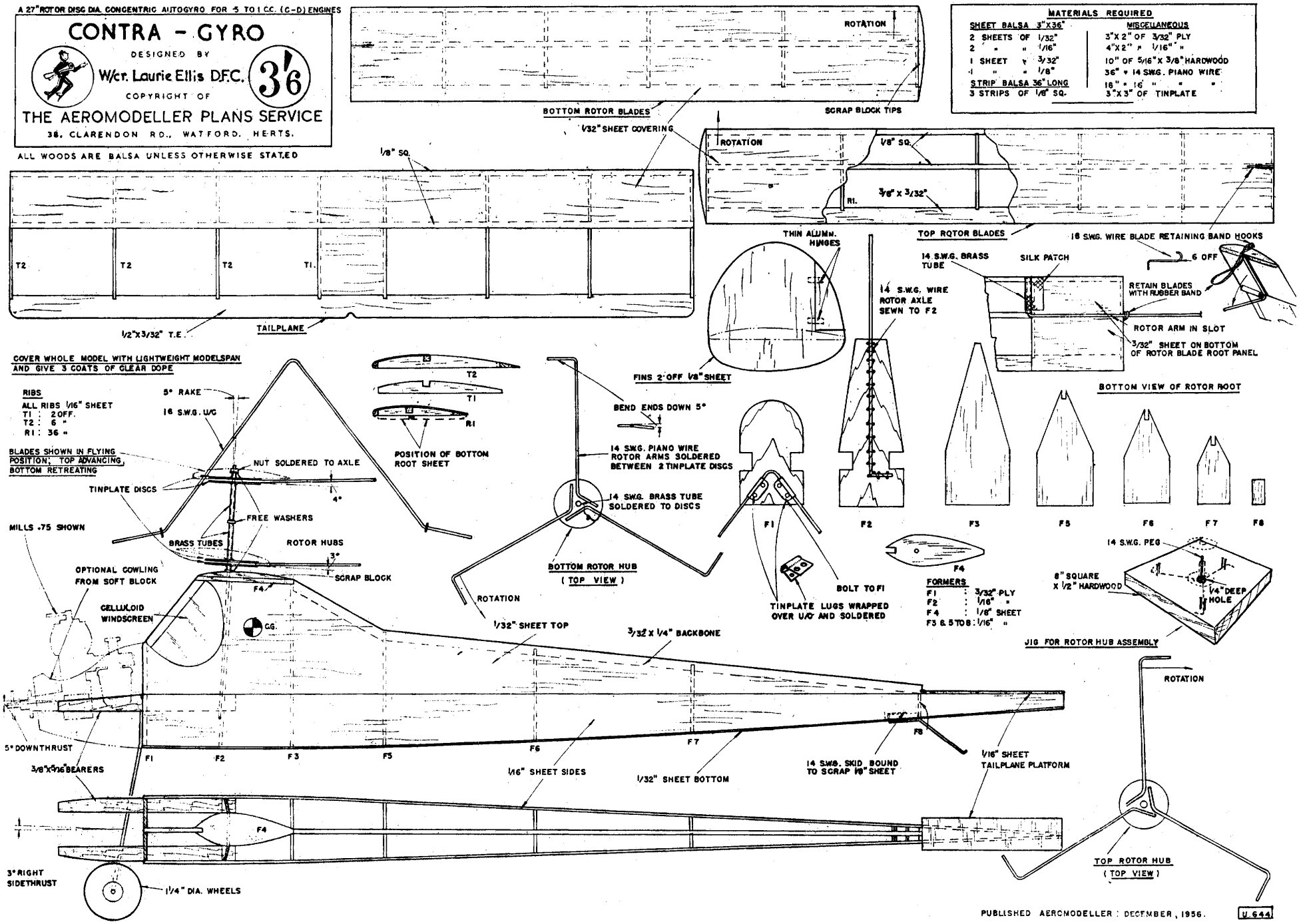
THE AEROMODELLER PLANS SERVICE

38, CLARENDON RD., WATFORD, HERTS.

ALL WOODS ARE BALSA UNLESS OTHERWISE STATED

MATERIALS REQUIRED

SHEET BALSA 3"X36"	MISCELLANEOUS
2 SHEETS OF 1/32"	3"X 2" OF 3/32" PLY
2 " " 1/16"	4"X 2" " 1/16" "
1 SHEET " 3/32"	10" OF 5/16"X 3/8" HARDWOOD
1 " " 1/8"	36" " 14 S.W.G. PIANO WIRE
STRIP BALSA 36" LONG	18" " 16 " " "
3 STRIPS OF 1/8" SQ.	3"X 3" OF TINPLATE

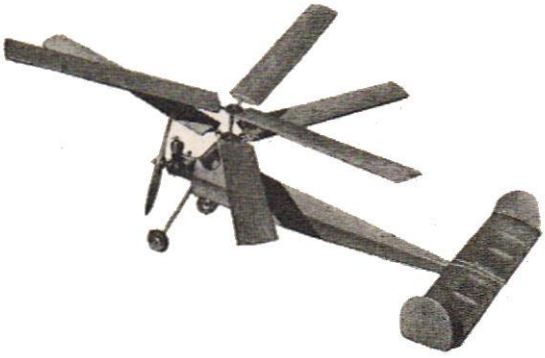


PUBLISHED AEROMODELLER : DECEMBER, 1956.

U 644

No torque troubles with this Canadian twin-rotor egg beater Laurie Ellis's Contra Gyro from Aerto Modeller December 1956

"Contra-Gyro" is the result of curiosity rather than design research! Having built a couple of normal autogiros, Laurie Ellis was prompted to see what would happen using contra-rotating blades, for it had been
noticed that with the normal autogiro one could experience difficulties with certain trim conditions. It was
thought that, with one rotor cancelling the torque of the other, it should be possible to trim for left or right turn, or to have straight ahead flight—also the fuselage should not counter-rotate on descent.
The model resulting has come well up to expectations, for one can fly it in calm conditions from an area smaller than a football pitch, and it answers trim in a docile manner with no apparent vices.
This model is not recommended for beginners. All components employ ordinary construction, but accuracy must be assured for the rotor shaft and hub. The whole secret of successful autogiro flying rests on the correct angles of rotor shaft and blades.
Rotorhub Assembly.—Hubs are shown full size, and the specified 14 s.w.g. wire should be adhered to. Cut tinplase discs to size and drill to accommodate copper or brass tube bearings. Tin the surface of tubes where they will contact the discs; surfaces of the discs; and the root end of the rotor arms. Jig the hub assembly by using a piece of board about 8 in. square, drilling at 1/4in. deep hole to accommodate the bearing.
Mark out position of the rotor arms and insert hub in jig, making sure it is vertical. Slide on one disc and locate rotor arms in their proper location, holding in place with pins. (Note.—Dihedral angles, etc., are bent into the arms AFTER the hub is assembled.) Firmly solder the arms in position, using plenty of solder to ensure firm holding. Now slide other disc in position and sweat into place.
The second hub is made in similar manner, with blade connectors pointing in the same direction, bearing in mind that, when mounted on the shaft it will be inverted to allow opposite rotation. Once the hubs are completed bend in 3 degrees dihedral in the lower hub arms, and 4 degrees in the upper. Bend the blade connectors to give minus 5 degrees angle of attack.
Fuselage is a straightforward box construction, but it is important that Former 2, which has the rotor shaft sewn to it, is set so that the backward slope of 5 degrees is incorporated. Engine bearers must be positioned to accommodate motor employed.
Tail and fins are of normal construction, as are the Rotor Blades. Note that the blades are completed before the hub attachments are cemented in place. The simple method of attachment allows the blades to be simply dismantled for repair or transportation, the rubber bands holding the blades firmly by passing from the hook under the arm and back to the hook. The rotor shaft should be rubbed with graphite to ensure smooth operation, and the retention of hubs on the shaft can be by means of a soldered washer, or the shaft threaded to take a small nut, thus making for case of
transport. The engine is mounted with 5 degrees downthrust and 3 degrees right sidethrust
Trimming and Flying.—Test glide by holding the model at arm's length overhead, walk into the wind to
get the blades spinning, and then—with the nose level—release the model with no forward thrust. If the C/G is vhere shown on plan, the model should slowly descend in a slightly nose-down attitude. Carry out initial power flights over long grass for safety, with engine running at half speed for about 15 seconds. Walk into wind until the blades are spinning rapidly, holding the nose pointing upwards at about



30 degrees. When blades are spinning fast, stop forward movement, lower nose to level attitude and release the model. If model stalls, pack up leading edge of tail by 1/16in., or if model dives place similar packing under trailing edge. Compensate any tendency ta slide to the side with rudder trim tabs.
"Contra-gyro" is very robust and can take a lot of punishment, and will give hours of fun. It is by no means a contest flyer, but is ideal for sport flying and will give hours of fun. Vertical rate of descent is very slow, so look our for thermals, for this model can take advantage of such lift as well as any winged machine.

Show scene. From Dave Bishop

Apologies for not getting the correct name of the pilot of Ian Richardson's super jet aeroplane, in last month's Sticks & Tissue. Ian won the world championships with his aeroplane which was being piloted by Jon Tappin (of course) and not Mr John Tanner as I wrote. And thank you to Mr Dave Tappin for the correction. I see that the picture of the World Jet Masters taken at Wroughton by Anne Tappin, shows me in the background n the top of my ex BBC Commer van and fitted out on its reinforced roof to be my

commentary box. Thank you madam. (That Commer van was especially reinforced to take the weight of the first BBC camera on its roof and which was "live" for the Grand National way back before I bought it for my DB Sound business.) That week started off extremely well as the main organiser was Derek Foxwell and almost every media outlet had previously recorded what it was all going to be about, on the Friday before it all started. It was to be the No1 news input to advertise the show. The show couldn't possibly fail to be a rousing financial success with such a coverage and we looked forward to the customers rolling through to entrance gates from the Saturday onwards, each and every day. The date for the show start was August 31 1997 but before it all happened there was a huge snag. Princess Dianne had died in an accident in France early on the Saturday morning and I was woken in my caravan with Mr Foxwell giving me the dreadful news. Every radio outlet was a simultaneous broadcast (S.B.) with nonstop news of the sad happening. All of the line of flags along the flight line were flying at half mast for the duration of a barren show. Still it all went ahead with none of the previously expected crowds. On the final day we played the German National anthem (3 times actually because my PA operators couldn't switch off the CD player!) On the final prize giving day, my team packed up all of the DB Sound PA and we wound our way back home, whilst the rest of the "workers" went to a pub for a proper meal. There was so much money lost on that venture, mainly by the Foxwell's, the Traplet organisation and it cost me as well to settle up my team's costs.
I have been commentating at recent shows on the Large Model associations team of Dawn Patrol flyers and for those who don't know who they are they have some of the finest fully detailed very large models of aeroplanes that were involved in the World War One.
Old Warden Modelair.
A "must go to" event is the next (and second this year) Modelair at Old Warden in Bedfordshire on the weekend of July 25 - 26. This is run by Ken and Sheila Sheppard and it is not a show but a "fly in" so you can bring along almost anything and fly it (or them) that will rise off ground but you must be prepared to show your insurance cover. At the recent Weston Park three day show run by Steve Bishop and Peter Whitehead, we were introduced to a very nice German modeller with his huge Fokker Eindecker, who came there with his modelling son. Both of them belonged to the Dawn Patrol team and he kindly came to my microphone to help out with the commentary. His English was very good and what a kind man he was, after introducing himself as "Herman the German". With a large number of that era's very large aeroplanes, it was superb demonstration of excellent formation flying. The result was some really fine photographs of their flying slots. At the following weeks Jane Stephenson's 29th Wings & Wheels show at North Weald aerodrome, we learnt something of a brand new "happening". A group of modellers were getting together and forming a new team that will be of half scale aeroplanes of those that are stationed at Old Warden. Already I have seen one of the models that they will be demonstrating, which after a total rebuild of its structure and finish (which presently is an iron on plastic) it will be a joy to witness. This will be replaced by a proper doped canvas covering exactly like to full size aeroplane. Bear in mind that there are well over 30 aeroplanes resident at Old Warden and another dozen that use the facilities there, on a fly in basis. It would seem that this new "club" will bring back some superb memories for modellers, and who knows, it could be the start of a new discipline for competitions even. Certainly the idea is very different and may we wish them luck in their new venture. Other places that have been modelling visited are Hever Castle which was for a charity that remembered the World War Two. The Croydon and Caterham club members took along their models and demonstrated them to an appreciative crowd. Also we went to the Biggin Hill airshow where aerobatic champion Mike Williams was due to fly in synch with Chris Burkett, both with Extra 300's. Mikes is a 42% scale job of Chris's full size and they have CAA clearance for their 8 minute slot at airshows. They will be at the Shoreham Airport show on August 22 - 23 along with a number of other models for a one hour demonstration. The show is organised by Rod Dene, the ex-Hunter pilot who worked in the RAF under skipper Chris Golds along with John Swain of Fanfare. It will be my pleasure to present them all at the two days of the show in Sussex.
More pictures from my computer's hard drive.

A super Hurricane flies by at the Biggin Hill show.

"The" ME 109 complete with original engine stole the show at Biggin Hill.

This Canadian MB 339 jet was modelled and flown by Mike Donnelly at the Biggin Hill Airshow..

Neil Tidy (and a Chris Foss Wot 4) shows what

A "Pulse" model at Old Warden's Modelair.

his Laser engines can do at Old Warden.

"Weatherman" is another super model at Old Warden's Modelair.

Control Liners are always fun by the control tower at Old Warden.

Control line Keil Kraft "Phantom's" were much in evidence at Old Warden.

Pals and control liners at Old Warden.

A "Puzzle" control line model at Old Warden.

A "Ringmaster" control line model at Old Warden.

Combat models are always at Old Warden.

Very fast tethered Car Racing is fun in the old Compass swing pit at Old Warden.

Another "radio assist" model seen at Old Warden.

A very nice model of a ME 163 German WW2 aeroplane.

A superb "secret" German prototype aeroplane at Old Warden by a very famous aeromodeller.

A superb model of a Junkers 87b Stuka dive bomber at Old Warden.

A very large "Biggy" free flight aeroplane at Old Warden.

An "Aldridge Special" at Old Warden.

Another super free flight model at Old Warden.

From Martyn Pressnell

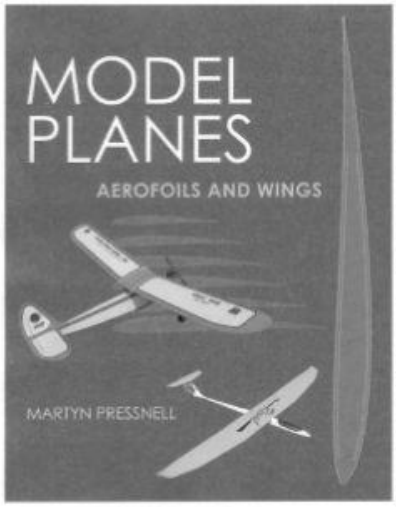
I have recently received this discounted offer from Robert Hale Ltd. that your members may like to use to purchase my new book 'Model Planes: Aerofoils and Wings'. This offers 25% off (normally £20.00) the price of the book. There is no additional postage cost except for overseas orders. It becomes generally available on 30 June. I also attach a colour copy of the cover.

The offer is available by going to www.halebooks.com and using the discount code 'wmodelplanes15'. Further information can be found at www.msp-plans.blogspot.com

Many thanks and kind regards, Martyn

MODEL PLANES

by Martyn Pressnell



ISBN: 978-0-7198-1540-9
Publication Date: 30 June 2015

RRP: ~~£20.00~~ **£15**

Model flying is a challenging and exciting hobby as well as a recognized international sport. The broad principles of flight as applied in full-size aviation are just as important to flying models, but these principles are not always recognized or understood fully by aero-modellers.

Written specifically with aero-modellers in mind, *Model Planes: Aerofoils and Wings* is a practical guide to the aerodynamic principles of the 'aerofoil' and the way that wings produce lift, which is vital to establishing flight. Included are over forty ready-to-use aerofoil sections in a range of typical sizes, together with a detailed method of plotting these sections on a home computer, using Excel or a similar software.

Written by a distinguished aerospace engineer with a passion for modelling, this comprehensive volume is perfect for the enthusiastic aero-modeller, whether starting out or looking to hone their craft.

Martyn Pressnell has been an aircraft enthusiast since childhood, becoming an experienced model designer by the age of eighteen. On graduation, he joined Handley Page to train as a professional airframe structures engineer. He went on to work at what is now the University of Hertfordshire, becoming Group Head, Aerospace Engineering, in 1992. For a time he was a CAA-designated Chief Stress Engineer in the airship business. Now retired, Martyn is as busy as ever pursuing model aircraft technology and acting as a consultant in airframe structures to the Engineering Sciences Data Unit, providing information to the aerospace industry worldwide.

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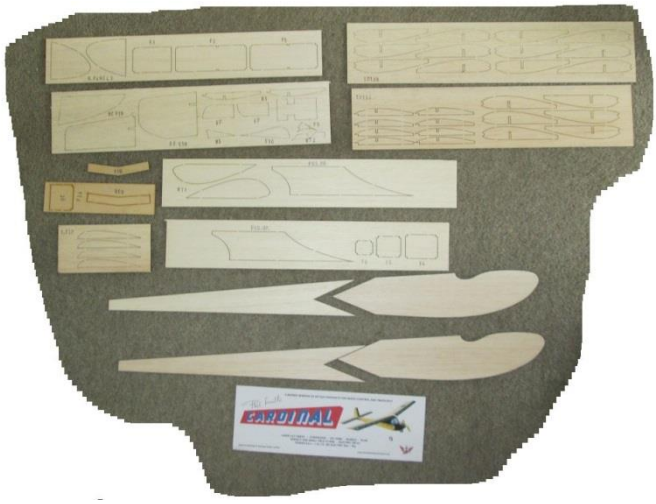
Mike Cummings Cardinal kit

There are two versions electric or IC and two further choices of a short or full kit.

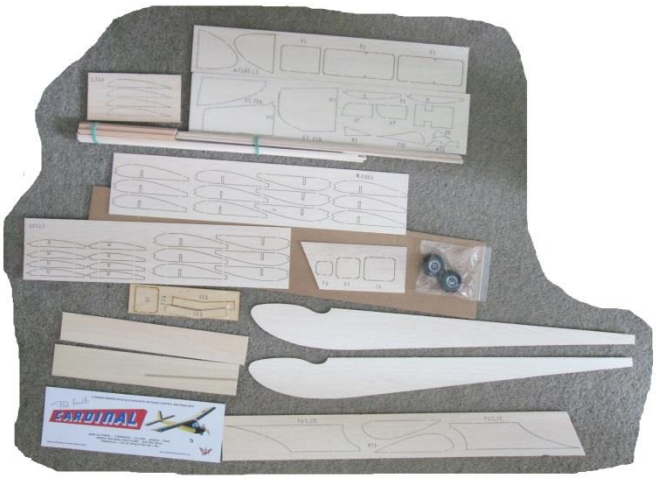
Mike still has Mills, Frog (3 types), KK and Mercury transfers available should anyone want.

His phone number is 02085423100 or website www.vintagemodelworks.co.uk

Electric Cardinal



Short kit



Full kit althopugh it does require additional items like radio, covering material glue so best to speak to or email Mike to see exactly what is in the kit. I believe a plan is also included

RC Vintage and CL events 2015

12 July	**Cocklebarrow Farm***	**P Howkins *T Tomlin**
23 August	**Cocklebarrow Farm***	**P Howkins *T Tomlin**
30 August	**Middle Wallop, Hants***	**RC T Tomlin, CL J Parry**
12 & 13 September	**Shilton, Oxfordshire**	**N Blackwell**
4 October	**Cocklebarrow Farm***	**P Howkins *T Tomlin**
Tomboy will be held at these events	***Please check before travelling as circumstances can caused events to be changed at short notice***	***MIDDLE WALLOP Dogs are NOT allowed on the airfield at any time***
Contacts	**Tony Tomlin 02086413505 pjt.alt2@btinternet.com**	**James Parry 01202625825 jamesiparry@talktalk.net**
	Paul Howkins 02476405126 howkins776@btinternet.com	**Nick Blackwell nick@nickblackwell.co.uk**

SHILTON
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BLACKWELL FARM

Saturday 12 and Sunday 13 September 2015

Details and directions for the Shilton Vintage meet

Flying all day Saturday and Sunday.
Caravans and camping available, water on site and port-a-loo.
BMFA members only. Proof of Insurance required.

The Bar-be-cue will be running on Saturday evening from 7 p.m. Bring your sausages and burgers and enjoy an evening with like-minded people.

ARRIVALS FOR CARAVAN AND CAMPING AFTER 2 P.M. FRIDAY.

You will need to pre-book your pitch as we are limited to 10 caravans only. The site will be well sign posted with **SAM35**. Post code **OX18 4AP**

Caravans/Camping £10.00 for weekend
Flying £5 per pilot.

Local facilities are available in Carterton 3 miles away.

CONTACT: Nick Blackwell Tel: 01285 657610 (evening only)

Email: nick@nickblackwell.co.uk

OR Derek Foxwell Tel: 0208 647 1033
Email: derekfoxwell@btinterenet.com

OR Boycott Beale Tel 01993 846690
Email: squealers@btinternet.com

Directions:

By road from the north:- Follow the A40 to Burford, at roundabout take the A361 toward Swindon, at junction for Cotswold Wildlife Park turn left onto Hen and Chick Lane. Follow lane until it bears left, here turn hard right and take the track until it ends, this is the airfield.

By road from the south:- From Swindon take the A361 to Lechlade and Burford. 3 miles before reaching Burford at junction for Cotswold Wildlife Park turn right onto Hen and Chick Lane, then as above.

THE NORTH COTSWOLD MODEL AERO CLUB

BMFA MID-WEST 166

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EVENT 2015

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MODELS DESIGNED BY THE LATE
DAVID BODDINGTON

SUNDAY 16TH:
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KEIL KRAFT
JUNIOR 60

ON BOTH DAYS, MODELS OF ANY SIZE, IN ANY VERSION AND WITH ANY FORM OF POWER ARE WELCOME

INFORMAL JUDGING AND PRIZES

COCKLEBARROW FARM

12th JULY 2015

23rd AUGUST 2015

4th OCTOBER 2015

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Signposted from Aldsworth on B4425 between Cirencester/Burford and off A40 between Northleach and Burford. (Follow SAM 35 signs).
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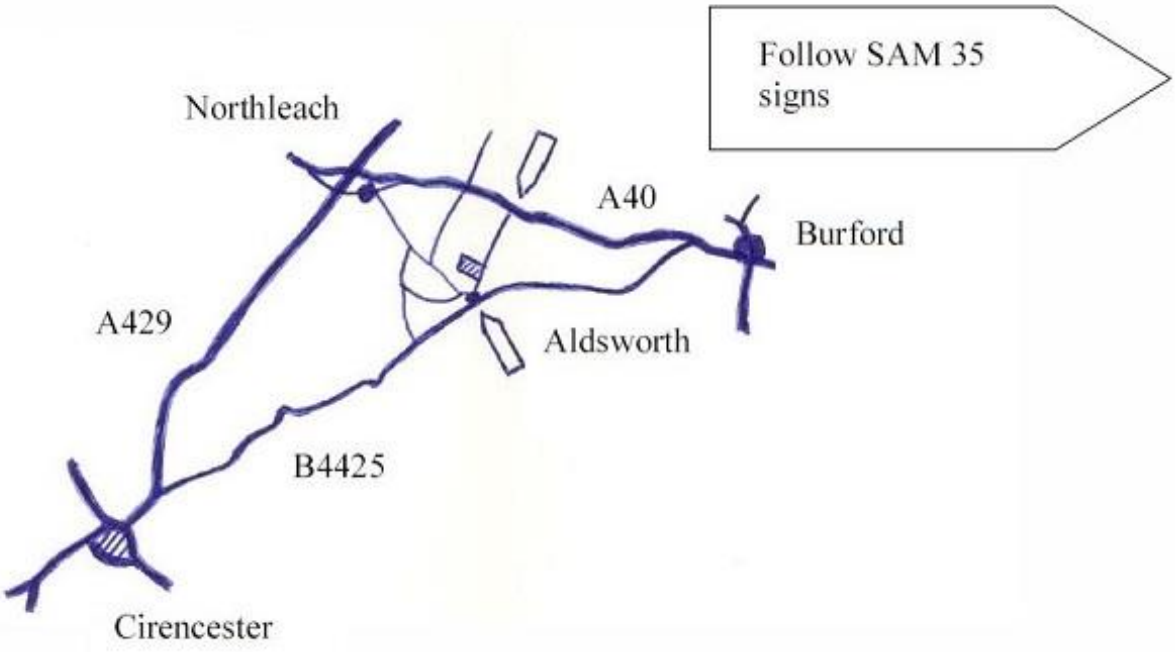
Email: howkins776@btinternet.com



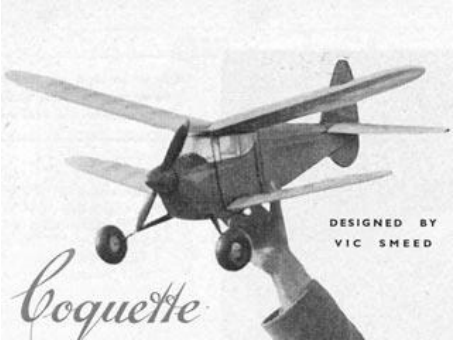
Event dates

11 October Wimborne MAC Control line day, grass circles, BBQ, portaloo, weather will be perfect as in April

More info from christopher.hague@ntlworld.com http://wimbornemac.org/

Belair

Belair Vintage Kits have added quite a few Vintage Parts Set, including 4 popular Vic Smeed designs - Ballerina, Madcap cabin, Majorette and Coquette. Also for the Veron plans sold by Colin Smith, we now offer the Super Robot and Aeronca Sedan. Finally for the Aeromodeller plan the Dizzy Diesel. All designs are faithful to the original plans.



We also publish a free catalogue which is free to your readers, please call 01362 668658 for your copy. www.belairkits.com

Clubman Class Profile Weatherman, available as a Parts Set from Belair Kits.
SAM35 authorised parts set from original designer's CAD data. Plan available from SAM35 or use plan included free in April issue of Aeromodeller.

Leon Cole
Belair Kits
Tel: +44 (0)1362 668658
www.belairkits.com

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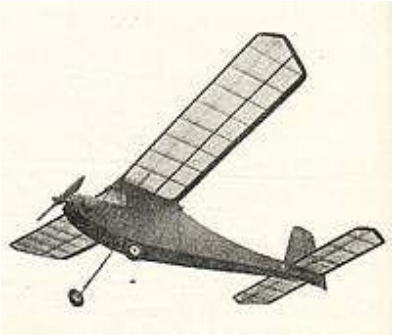
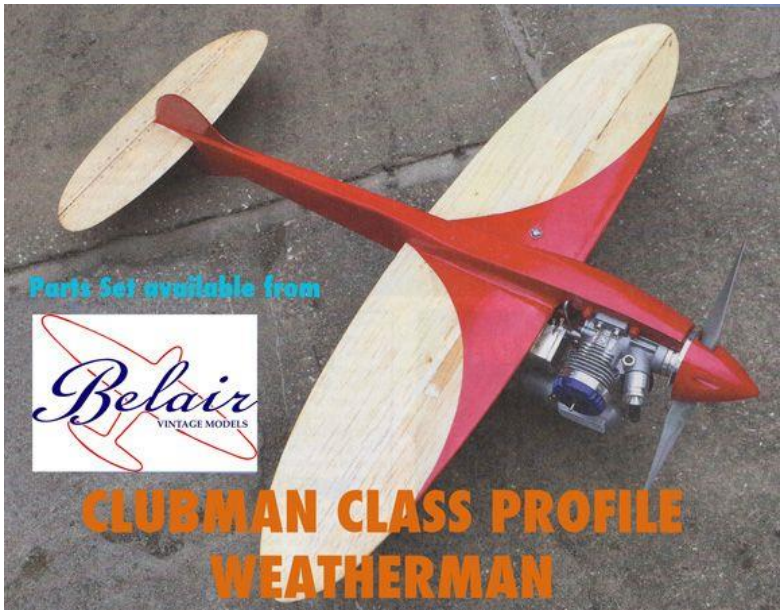
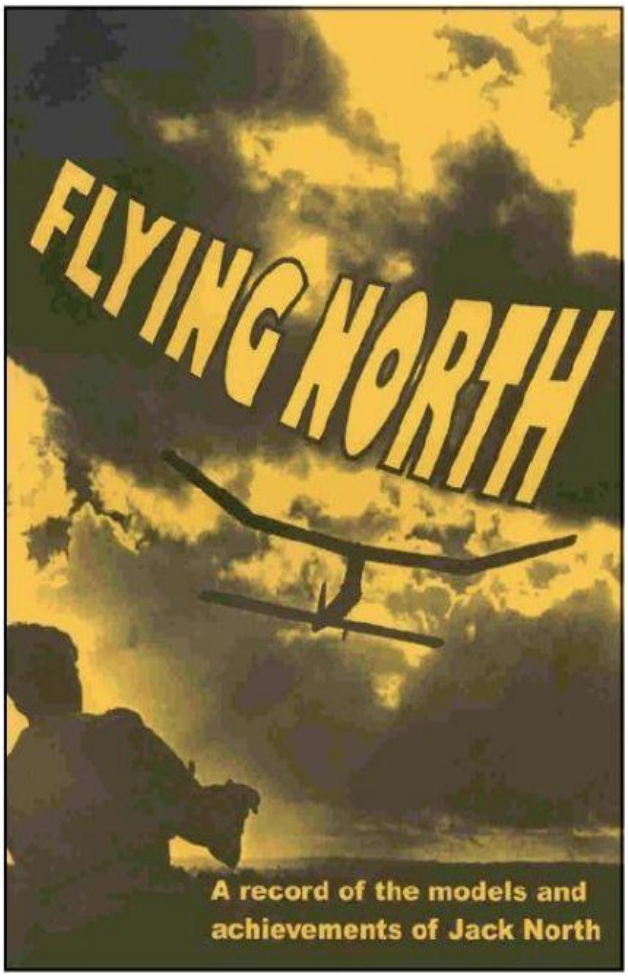




FLYING NORTH



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