

Sticks and Tissue No 148 – March 2019

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://sticksandtissue.yolasite.com/>

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

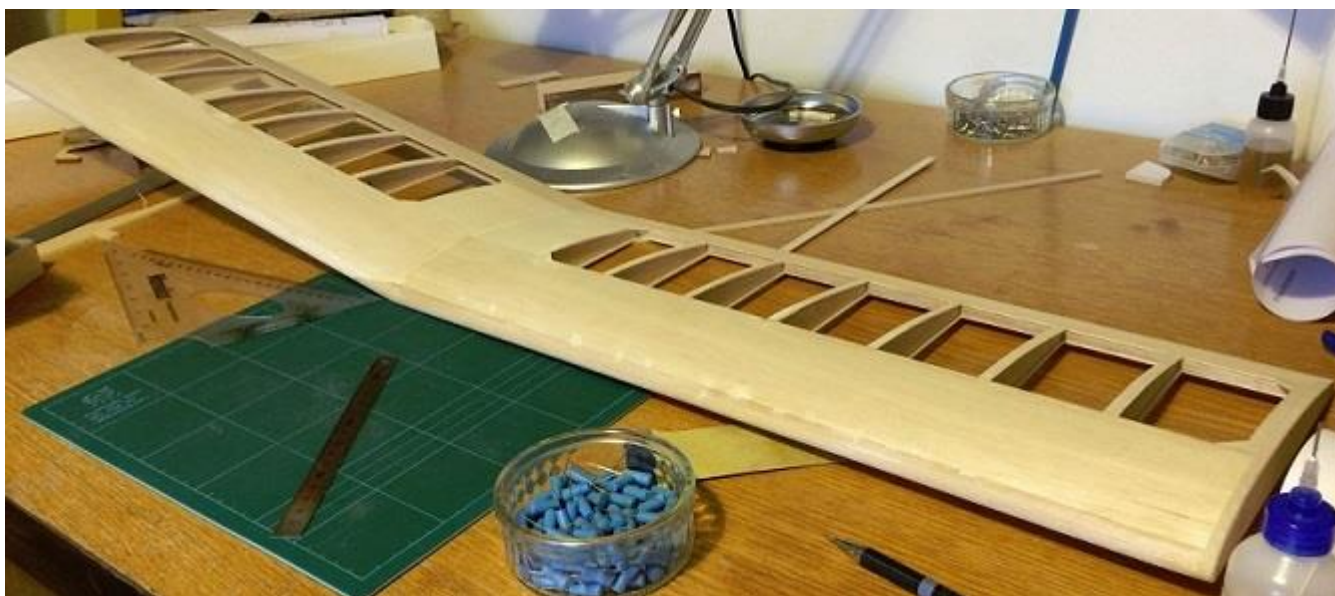


Contester P30 photo sent by Peter Ziegler more photos to follow in this edition

From Andrew Squires

I've done a little bit more on the Novice, target is to finish it by the end of the month. Few pictures attached. One tool that I've found invaluable for shrinking films like the laminating film and the like is a solder rework station. Essentially you can set the output temperature at anything between 100 and 500 degrees C and adjust the fan to anything from a gentle waft to more of a blow. Much more controllable than a hot air gun. They can be had for as little as £26!

<https://www.ebay.co.uk/itm/858D-220V-SMD-Soldering-Desoldering-Station-Hot-Air-Rework-Gun-Tool-3Nozzles/301966004104?epid=581359676&hash=item464e938f88:g:a5gAAOSwzZFbbBUV:rk:2:pf:1&fructupt=true>





From Peter Renggli Saturday by MG Bern

Another season has slowly gone into its "final third" and we met us again with our friends, modelers, antique enthusiasts, simply with all the good fellows from the MG-Bern "Modellfluggruppe Bern" on 22nd September at Mühlethurnen.



We missed the traditional "Antik-Modellflugtag" being held annually in September which usually offers nice and pleasant weather, but this event was equally the same. Even the weather forecast has promised rains and lower temperatures, in the end, the Saturday morning was awakened by the sunny day and warm breeze. Such nice weather could only promise a perfect day for a flight. What we did, of course.



Kurt and his Satyr

Kurt has just landed with his nicely built Satyr (designed by Jiří Smola in 1943) at that time we arrived at the place. Followed by Thomas with his Hummel (design. Helmut Antusch, 1937) powered by nicely restored sparky Kratmo.



Thomas launches his Hummel

Then I grabbed my e-powered glider and thrown it in the air and stayed in thermal lifts for the next thirty minutes reaching the peak altitude above ground level of 260 meters. Nice flight.



From the left: author, Kurt, Peter and Thomas

Thomas then prepared his Riedstern (design. Alwin Kuhn, 1941) powered by Dyno 2,04ccm diesel engine. Both model and engine are original and kept by owner in excellent condition. It was a true pleasure to see this aged model still doing its job as these times when first diesel engines came to the hobby.



Stanley and Thomas, the model in front is Hummel



I have tried to follow Riedstern with my quad and film it to create a short video later. This task is not as easy as it seems to be, although there is a real-time HD video transmission from the camera to the ground station. The final outcome is available below. I could say instead of "hunting" the model with a drone I would stay in the air filming the fly-bys only, we will see next time.

YouTube Video

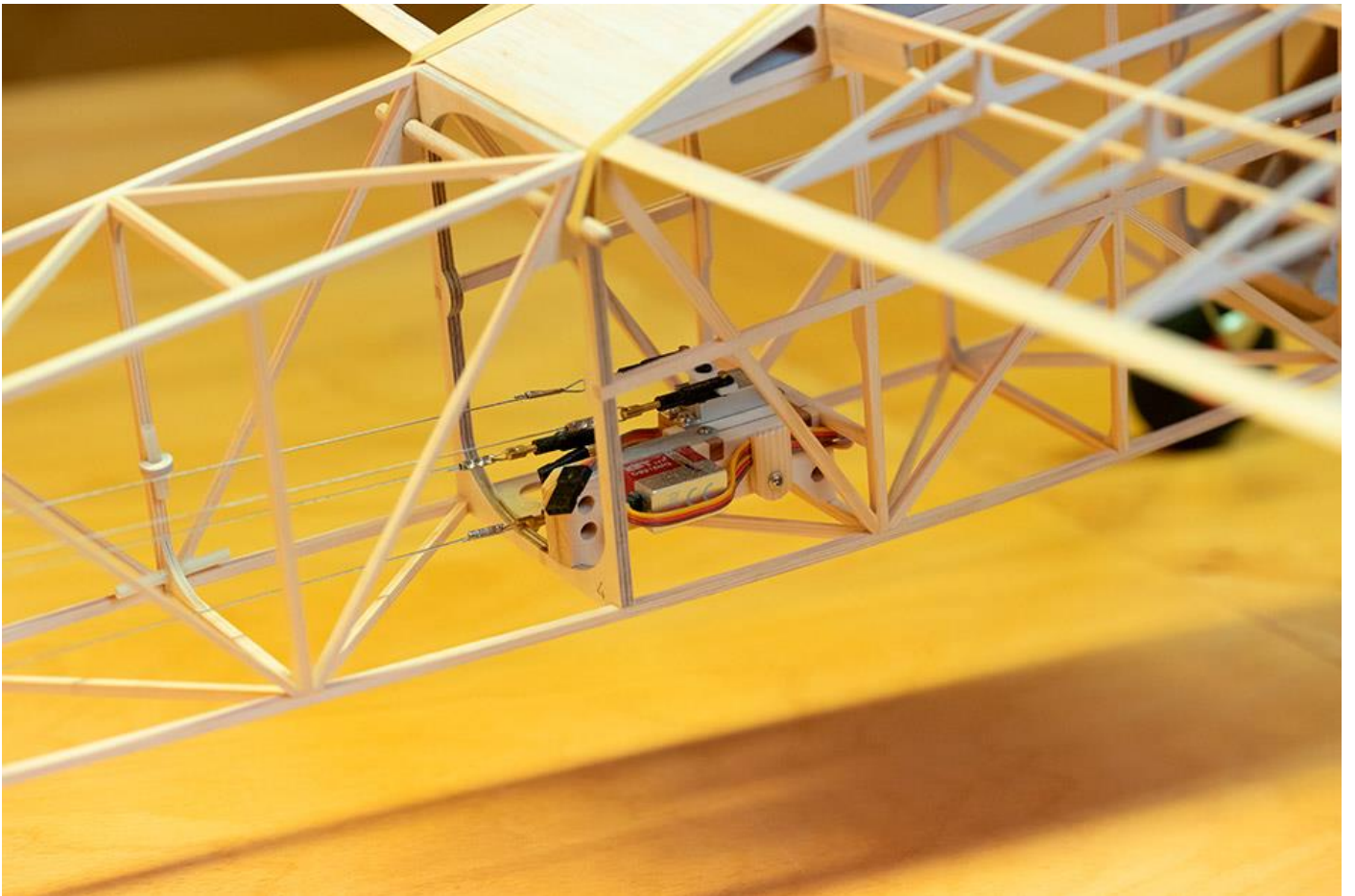
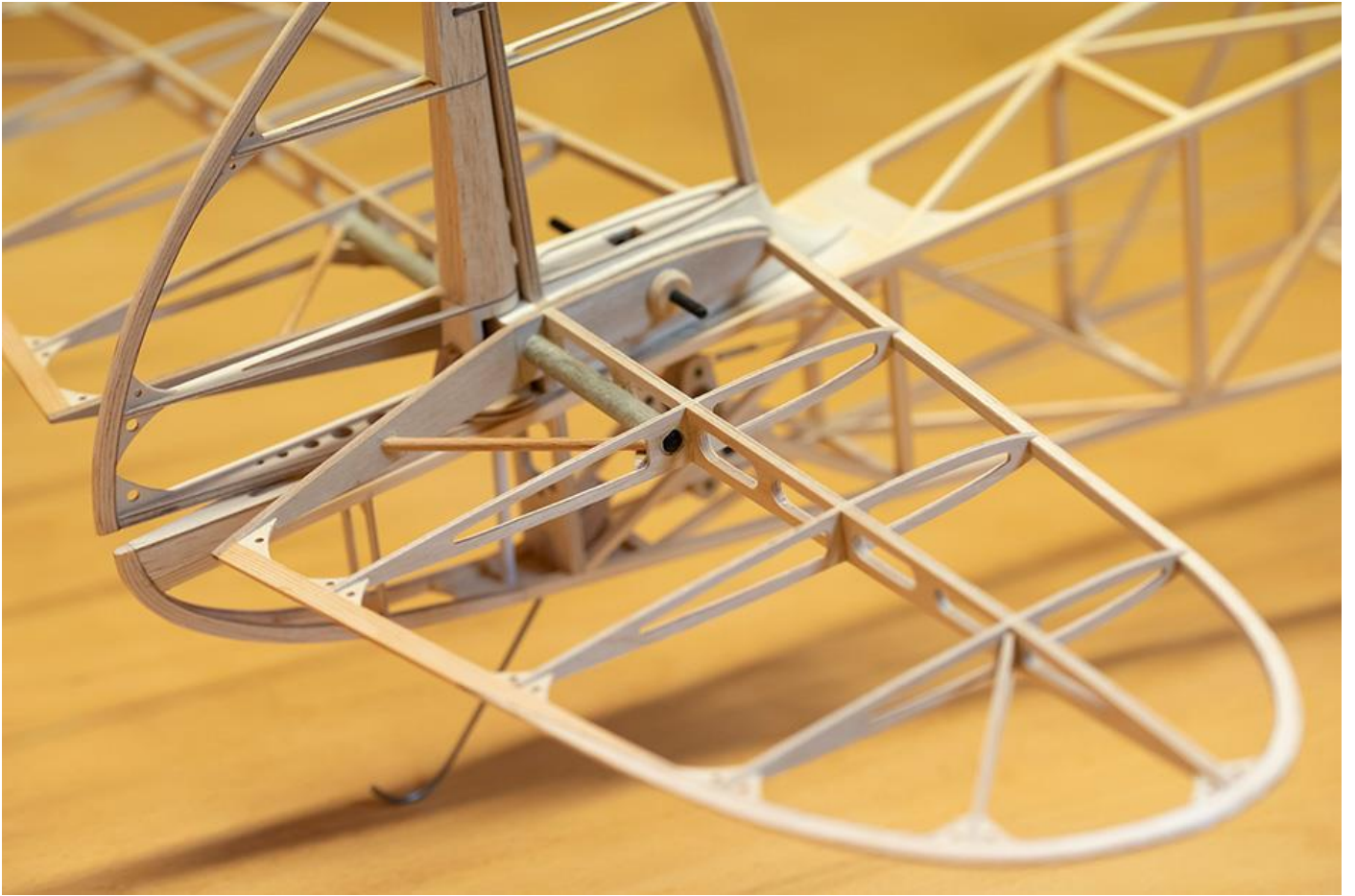
<https://www.youtube.com/watch?v=9Wz5HyncjJg>

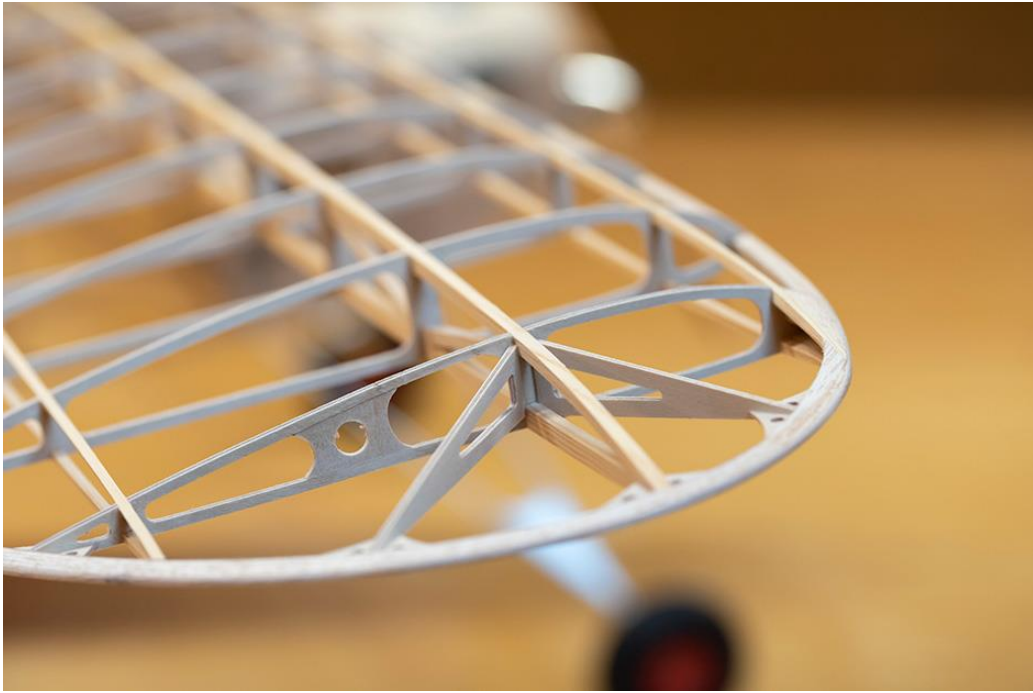
We then made a break for the lunch and spent nice time speaking about our beloved hobby, engines, vintage aero models even modern stuff came to the word.

Later afternoon we went to visit Heinz who expected us at his home. He then showed us his workshop where he builds his models. One of his latest and from my point of view, most notable model is nothing else than legendary Czech aero model named "NL-532 Netopýr" (The Bat in English or Fledermaus in German) designed by Ladislav Neubert in 1942. Why did I mention this model is "most notable" for me? Because my friend Peter has drawn this model completely new using CAD software and I converted every part into CAM and milled two kits on my CNC machine. I was quite nervous when I realized one kit came to Peter and the second one to Heinz, who is undoubtedly one of the best model builders I met. You can see and enjoy his craftsmanship on the photos below.

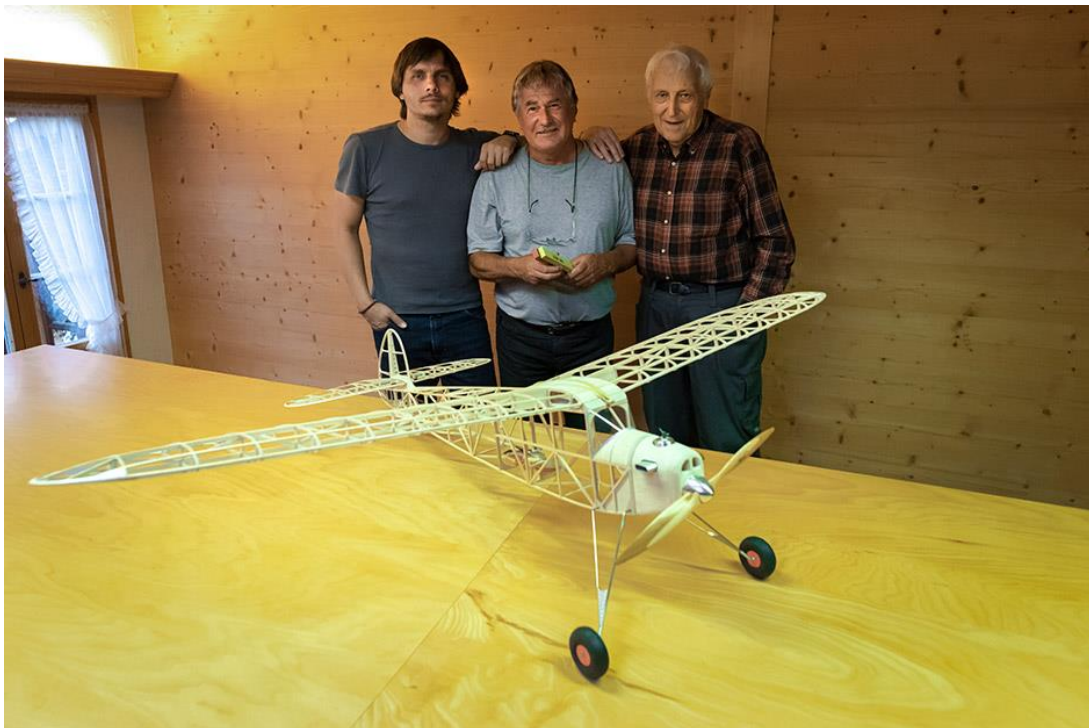
Netopýr photos







I would like to thank all my friends of MG-Bern for this exceptional and valuable event and looking forward to meeting us again in the next season.



Stanley, Heinz and Peter

Stanley J. Stembera, 23rd September 2018

From Tom Crompton

I thought many would like to know of John's passing. Known to many for his LULU, and more recently for the OSPREY class of indoor models, John was active flying and retrieving his models from his wheelchair up until very recently. The Norwind group is run by Tom Tomlinson, Dave Whitehouse and myself. If of interest, put Norwind model flyers into Google and have a look at our extensive website...yes all our models are stick and tissue.

John Barker

It sometimes falls to me to be the bearer of very sad news and I find this to be especially sad. Tim Milner informed me that John Barker died within the last week at the age of 91. As you will know, John has been very frail for a while, but that hasn't stopped him from coming to NORWIND and competing. We can only have great respect and admiration for the way he persisted despite the use of a motorised wheelchair and increasing arthritis. Some of us have known John over many years. I first met him when I joined the original NORWIND group in Wigan over 30 years ago. John has contributed a lot to Aeromodelling. Apart from being a fierce competitor in the outdoor freeflight scene for many decades, John designed the famous Aeromodeller glider plan "Lulu", which has introduced hundreds of beginners to the joys of freeflight modelling. Right up to the present time, he was always an innovator. My current competitive "Legal Eagle" is from John's "Bar Fly" design which is on the website. Last Year he was the originator of a new BMFA contest class which is called "Osprey". Whatever John's modelling achievements, he was just a really nice man. When the group was facing a cash flow issue, John quietly came up to me and said that I should let him know if we were in trouble and he would help out. I know, from his daughter and Tim that coming to fly with us has been a great thing to look forward to for John. It is also to Tim's credit that he has offered the support needed for John to continue. I have attached a photo of John with his "Bar Fly" in happier days.



From Tom Crompton

Reading Bill's writings on the fox 10(Hustler), the strange shaped lug was to be for a starter spring of some sort. The rumour factory has it that it was to be used in a plastic ARTF control liner which didn't happen. Also sold in UK as the Gremlin by a conglomerate of shops ..Roland Scotts being one (my local shop for many years). There was some tie up with Bradshaw Model Products which I never got to the bottom of also.

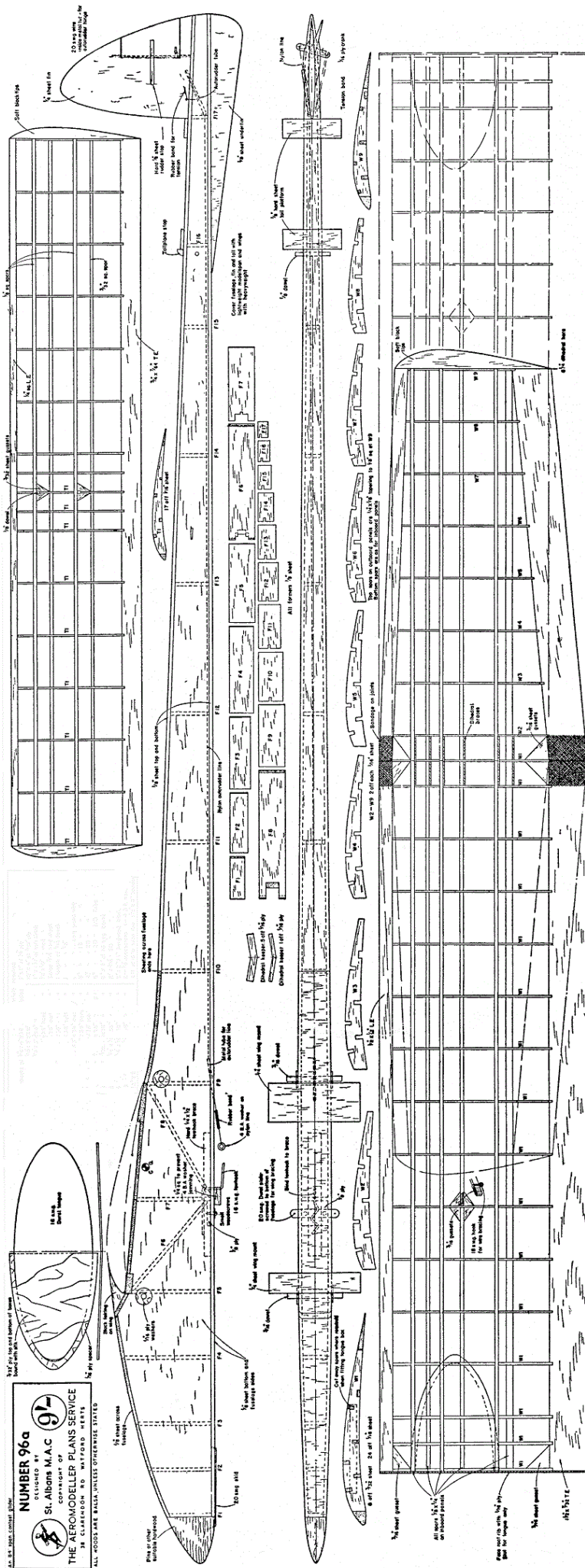
From Brian Austin

Bit of sad news re Bill Morley, C/L man who worked in HJN shop plus designer of the Scimitar

I thought you should be aware that Bill Morley has died. Apparently he had a massive stroke last week and taken to hospital. I do not know any details other than that.

His daughter will advise me about funeral arrangements, and when these are known I shall advise via email should you wish to attend.

As you knew Bill from way back it seemed only right inform you directly. Another great loss to aeromodelling. Barry Spouge



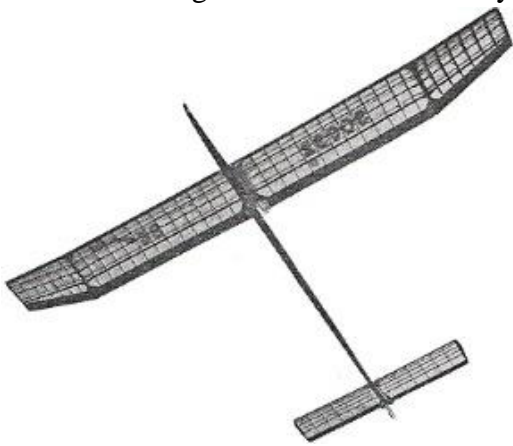
Number 96a St. Albans' open glider. From Aero Modeller February 1962

During the last ten years, preoccupation of model glider enthusiasts with the A/2 class has tended to leave the large, open class, glider out of favour. Prior to this decade of ascendancy of the international class in competition, the Open Glider reigned supreme. Results of the 1961 rallies indicate that the "wheel of progress" has swung full circle and that this type is, once again beginning to command greater interest. Experts such as Jim Baguley and Laurie Barr have used this type in competition for some time, but perhaps the greatest 1961 success story comes from that consortium of experts in the St. Albans M.A.C., B. Cox, J. Simeons, I. Crawshaw, D. Tipper and G. Fuller, (who represent four aircraft companies and a leading model wholesaler) responsible for Number 96a presented here. The design has, in the last three seasons, amassed a fine record of achievement, including three 1st places at the South Midland Area Rally and in the "Model Engineer" Cup for 1961 and 1959, 2nd places at the 1959 Devon Rally, and Croydon Slope Soaring Rally, 3rd places at the 1959 Surbiton Gala and 1961 "Model Engineer".

Planned at the St. Albans permanent clubroom, Number 96a was originally intended to be a lightweight of around 16ozs., but subsequent experiments proved the performance of a 20 ozs. example to be superior. Eight prototypes have flown, all but one having placed high in competition. The last three performed straight from the building board with no adjustment to rigging, weight or turn!

Begin construction with the fuselage, cutting sides from medium 1/8in. sheet, 4 in. wide for the nose section. Scarf joint the sheet sides around F.10, arranging the joints in opposite directions. Cut F.5 and F.7, again from 1/8in. medium sheet and assemble with the fuselage sides. Cut the remaining formers from soft sheet to save weight and cement all but F.5a and F.6a into the fuselage where indicated on

the plan. The fuselage bottom is 1/8in. medium sheet scarf jointed around F.3 and cemented in place. The 1/8in. ply plate is cemented to the floor ahead of F.6 through the top of the fuselage. This is to hold screws for the 20 s.w.g. dural plate wing brace stay, after the completed fuselage is sanded. Bind and cement the formed 16 s.w.g. towhook to a 1/2 in. by 1/4 in. hard balsa strip and cement the assembly to the base. Now fit remaining formers F.5a and F.6a then add wing and tailplane rests ensuring that they are at 90 degrees to the fuselage sides. Cement metal tube sleeving for auto-rudder line through the fuselage sides at F.7 and behind F.15 and thread Nylon cord through these tubes, entering the fuselage at F.7 and reappearing at the rear tube. Now sheet the top crossgrain, with 1/8 in. balsa.



Sand the fin to shape and symmetrical section from 1/4in. sheet, separating the rudder and cementing a metal tube to its leading edge. Insert 20 s.w.g. wire hinge pin through the base of the fin, through the rudder tube and up, burying it into the wood above. Cement this assembly to the fuselage, and add the underfin, ensuring that both fin components are vertical to fuselage. Carve

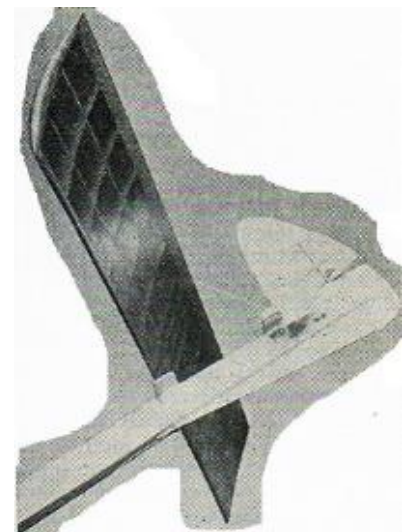
pine or hardwood noseblock and attach to F.1, followed by 20 s.w.g. wire nose skid.

Sand fuselage and cover with lightweight tissue. Fit wing retaining dowels, autorudder and tailplane stops. Cut the tailplane ribs from quarter grain 1/16 in. sheet balsa. Sand the trailing edge to shape from a 3/4 in. by 1/8 in. strip. Notch for ribs and pin to plan, packing up 1/16 in. to allow for camber. With leading edge pinned in place, cement ribs and spars. Sand to fine finish and cover with lightweight tissue. Fit d/t hooks. All but the centre eight 3/32 in. wing ribs are also cut from quarter grain 1/16 in. sheet. Sand the trailing edge from 1 1/2 in. by 1/4 in. strip and notch for ribs. Make up the tongue box from 1/16 in. ply, gluing and binding with silk. Pin leading and trailing edges to plan, tapering leading edge tip from 1/2 in. sq. to 1/2 in. by 7/16 in. The trailing edge should be packed up 1/8 in. to allow for camber. Cement all ribs in position and face root ribs with 1/16 in. ply. Affix tongue box and inboard spars. (If preferred, the spars for both wing and tail can be added by pinning the spars over the ribs, then notching to fit spars). Where necessary, spars should be relieved at root to accommodate box. Crack wing at dihedral break and apply dihedral on tip panels with 1/16 in. ply braces. Cementing the outboard wing spars and all gussets in place, (including four ply keepers), tip blocks and strut hook, binding latter in place. Sand all over and cover with heavyweight tissue. Finish wing construction by bending the 1/16 in. thick dural wing tongue, ensuring that it fits tightly into the boxes. A loose fit can be taken up with thin paper glued to upper and lower faces.

Fully assemble the model, shaping and adjusting the wire dihedral struts for desired dihedral angle. Rig the autorudder assembly, tensioning the rudder with a rubber band and ensuring that the rudder returns to exact neutral position when the nylon auto-rudder is actuated on tow. Add thread dethermaliser tailplane stop and ballast as required to bring the C.G. to desired position as indicated on plan.

If completely true and warp free, the model should fly satisfactorily straight off the board.

At right: is the tail- tip-up for dethermalising, a vital operation with such a maximum – making design as the Number 96a. Note auto rudder tab set For left turn on the glide.



From Bill Wells

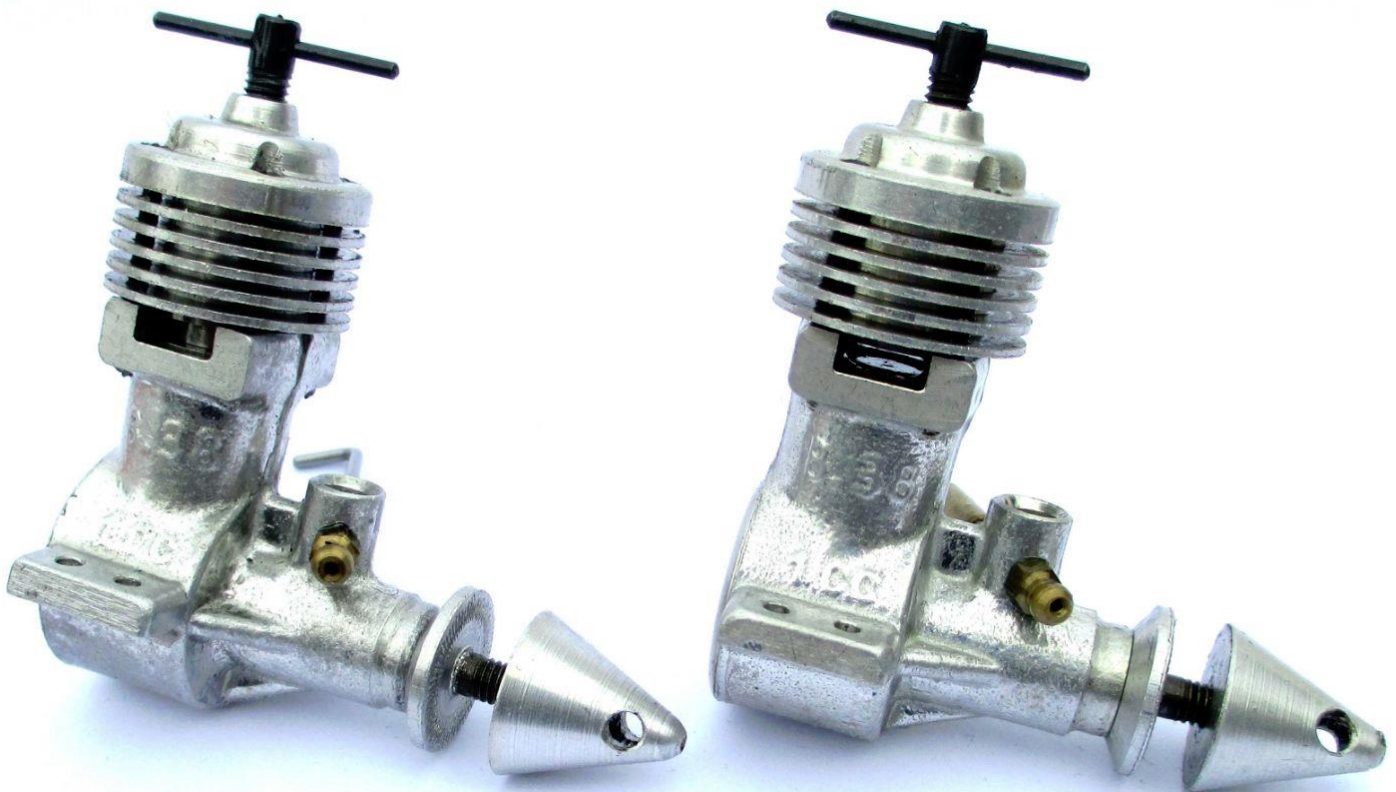
Barbini B. 38

My information on this delightful attractive little 1cc engine was limited to three test reports until I discovered the article written by Adrian Duncan on Barbini engines. If you are interested I would highly recommend going onto Adrian's website.

http://adriansmodelaeroengines.com/catalog/main.php?cat_id=68

For the purposes of Sticks and Tissue I will keep it short and just the basic bits relevant to the B. 38. The designer and manufacture of the engine was Giovanni Barbini who at the age of 38 in 1953 produced the first production model of the engine, hence B.38! Early engines had a red anodised head a rounded shaped spinner and a straight across needle valve. Later engines did not have anodising, had a conical spinner and a left side backward swept needle valve. The engines were made up to 1987 although by that time production was passed on to Bruno Barbini nephew of Giovanni.

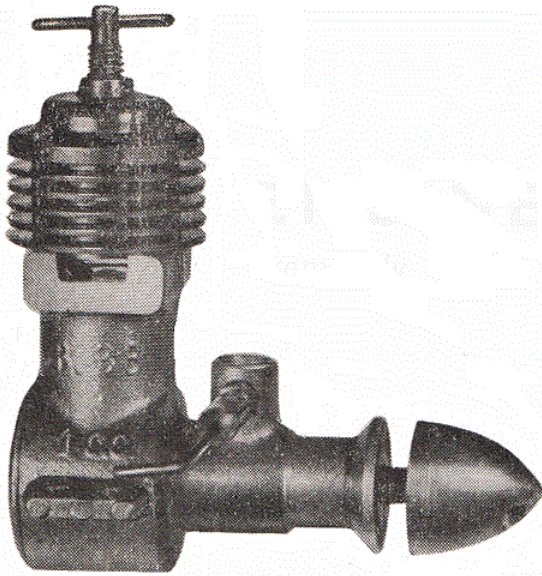
The long stroke and the vintage looks of the B38 together with shiny case makes for a very pleasant looking engine. As expected with small batch made engines the workmanship is excellent. According to reports for a 1cc engine it has a good power output and weighs just under 2ozs. The weight is not much different to Mills 75 (without tank) but with a lot more power. The engine has easy starting characteristics and would be ideal for free flight models especially those fitted with emergency 'get it back' radio!! You wouldn't want to lose a little gem like this. Because the engines were not really made for export they are a bit rare outside Italy so they have become sort after by collectors. If you are lucky enough to obtain one of these little Italian Jobs I am sure you will not be disappointed.







Aero Modeller review



This is a remarkably fine Italian diesel, rather old fashioned in external appearance but with interior workmanship and finish of the highest possible order. In other words, maximum attention has been given to the parts which need it most, with apparent disregard for “eye appeal” in the finished product. Its performance is outstanding for an engine of this size, with a specific output of .1 B.H.P. per c.c. It is also small in overall size and quite light (under two ounces). It is essentially a high speed engine, peak power being developed at 15,500 r.p.m., which is appreciably higher than usual with a plain bearing engine.

The B.38 tested had pleasant starting characteristics, requiring only a couple of finger chokes to prime. Compression adjustment is non-critical and the engine can be “throttled” by reducing compression. The engine will continue to run on all sizes of propellers with the compression backed off to its limit and on all propeller tests had, in fact, to be stopped by grasping

the spinner nut. This was done in preference to closing down the needle valve as this adjustment can be left alone for starting and running, although opening up a little helps starting and optimum performance with any load is, of course, found by closing down the needle to the finest mixture setting at which the engine will continue to run consistently.

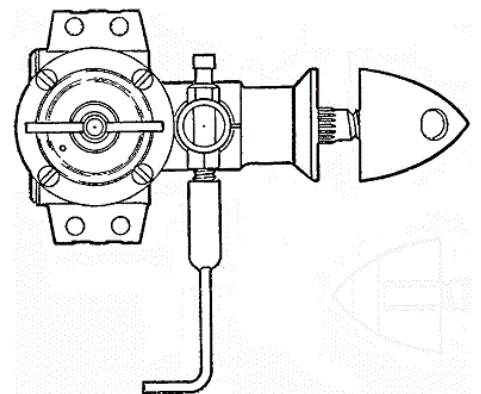
One fault which did develop during the test runs was that the liner rotated inside the cylinder jacket, blanking off the exhaust ports and gradually “throttling” the engine down. To prevent this taking place, the hold down screws had to be tightened really hard when the engine was hot. These are quite small screws (approximately 8 BA size) with small diameter heads, so this does not appear an entirely satisfactory arrangement. On the other hand, the cylinder liner itself has a very generous wall thickness and quite free from distortion when tightening down, so there are no troubles in this respect.

The interior discloses a number of features of high-class engineering workmanship. The connecting rod, for example, is machined from steel to a thin, fiat section, subsequently hardened and tempered. The big end is left fully hard with a generous length of big end bearing (3/16 in.), which is also slotted for lubrication purposes. The gudgeon pin is hollow, located in the piston with tiny circlips, so that its ends are well clear

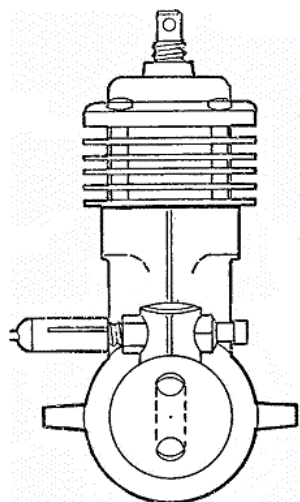
of the piston exterior surface. The cylinder (liner) is of steel, formed with a conventional “collar” into which are cut the diametrically opposed exhaust ports. The transfer ports under the exhaust ring are end milled upwards at an angle and their effective opening overlaps the exhaust to a considerably useful extent, probably the key to the fine performance. They are extremely generous in depth, giving appreciable sub-piston induction. The intake closes very early, indicating the sub-piston induction is used deliberately rather than “accidentally”. There is quite a narrow space for the transfer passage (between the bottom of the cylinder and the crankcase casting), but at the bottom, twin gas

passages are grooved to correspond to semi circular cut-outs in the bottom of the liner, although the main function of the latter is to provide clearance for the con rod. The exhaust porting on the crankcase casting is cut away completely at the top, the cylinder bedding down on a shoulder below the bottom line of the port. The cylinder jacket is of dural, anodised red, and formed with a rather “old fashioned” domed head.

Interesting feature on the head is a vent hole drilled to relieve air pressure over the contra-piston. The piston is of cast iron, reasonably light, perfectly plain with a slightly conical top and grinding marks on the bearing surfaces. The crankshaft is of generous diameter (6 mm. or .236 in.) with a .35 mm. (.1385 in.) crankpin



machined on. The crank web is cut away at the crankpin side to give an attempt at counterbalance. The crankshaft runs in a bronze (or possibly brass) main bearing and is extremely well finished and fitted. All the interior work, in fact, is very well done with the running fits just right. The cylinder appears to have been internally ground and lapped, with adequate taper relief at the bottom end to give minimum sliding friction. Very little running in time was required to ensure that the engine was completely free.



By comparison, the external appearance of the crankcase is quite rough, this being a gravity die casting with a minimum of machining to finish. It is not even a very accurate casting as regards external geometry. A nice touch is, the fitting of a thin steel washer behind the propeller driver, the latter being an aluminium or dural machining pressed over a splined section of the crankshaft.

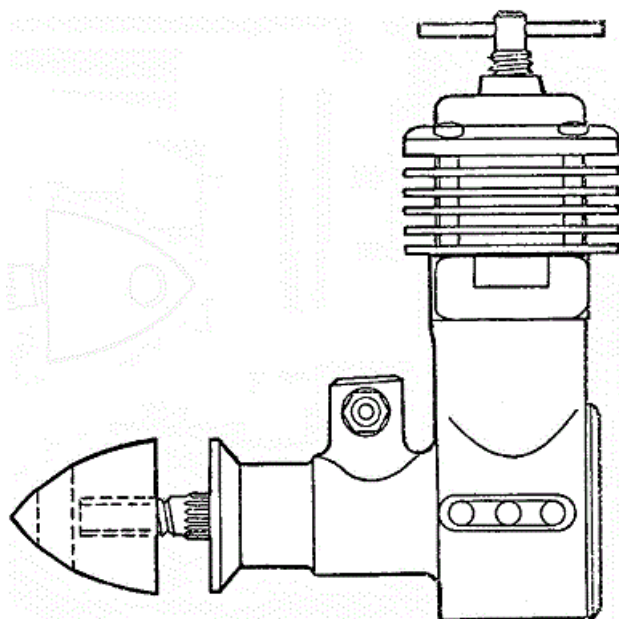
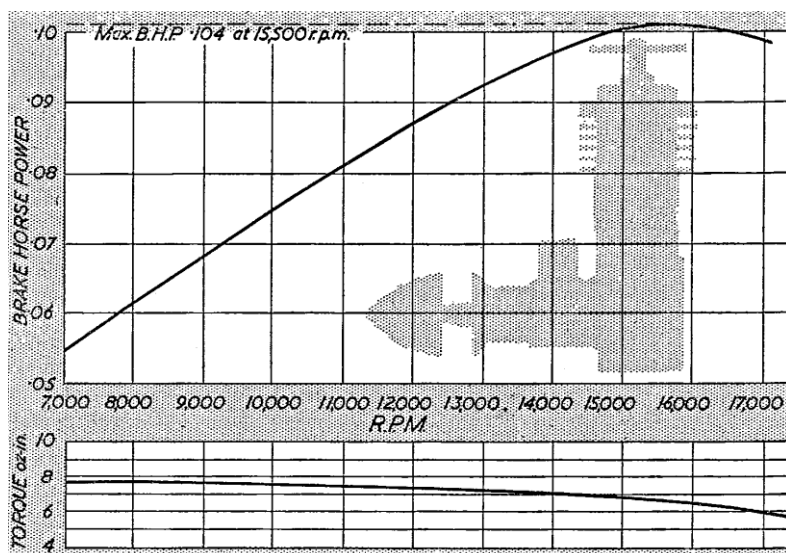
Propeller retention is by means of a turned spinner nut. The length of shaft is adequate to accommodate any of the propeller pitches likely to be used with this engine.

Summarising, the real merits of this engine are hidden under a rough exterior. It is extremely well made where it has to be and its performance puts it in the outstanding class for its size. Maximum performance would appear to demand a propeller size giving around 13-14,000 r.p.m. static—e.g., something like a 6 x 4 or 7 x 3 for free flight and a 5 x 6 or 6 x 6 for control line. Certainly it should give a good account of itself in either category.

PROPELLER TEST DATA

Propeller r.p.m.	dia. x pitch
6x4 (Stant)	13,400
7x6 (Stant)	8,800
8x4 (Stant)	8,600
8 x 5 (Stant)	8,000
6x6 (Stant)	11,200
7x4 (Stant)	10,800
6x3 (Trucut)	13,300
5x3 (Trucut)	16,000
6x4 (Frog nylon)	16,300
6 x 9 (Tiger)	8,800
8 x 31 (Tiger)	10,400
8 x 4 (Tiger)	9,000

Fuel used: Mercury No. 8



SPECIFICATION:

Displacement: .973 c.c. (-059 Cu. in.)

Bore: .3955 in.

Stroke: .483 in.

Bore:Stroke ratio: 0.82 .

Weight: 1 7/8 ounces.

Max. power: .104 RH.P. at 15,500 r.p.m.

Max. torque: 7.8 ounce-inches at 8,000 r.p.m.

Power rating: .107 B.H.P. per c.c. .

Power/weight ratio: .0555 B.H.P. per ounce.

Material specification

Crankcase: Gravity die casting in light alloy

Cylinder: Hardened steel

Piston: Cast iron

Contra Piston: Cast iron

Cylinder jacket: Dural (anodised red)

Crankshaft: Hardened Steel

Main bracing: Bronze

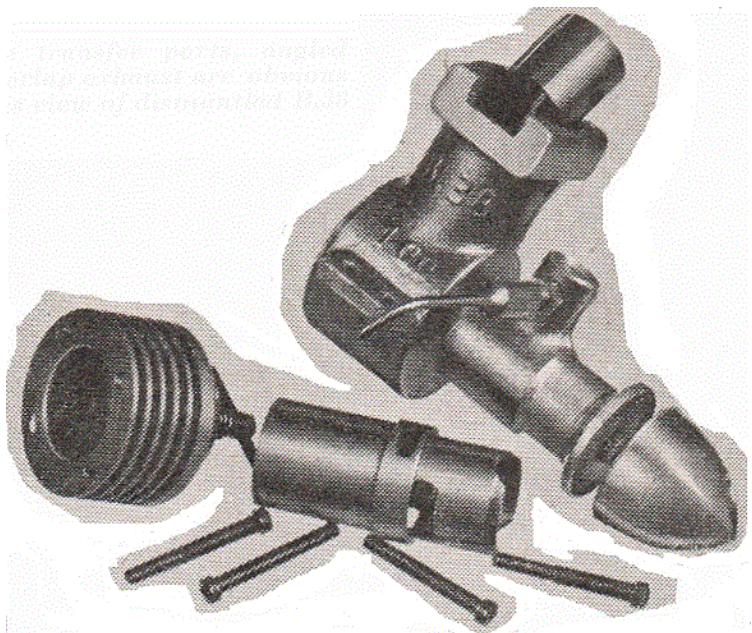
Connecting Rod: Steel, hardened and tempered.

British Agents:

Solana Ltd., London, S.W.1.

Retail Price:

(Italy) 4,250 Lira



From Brian via Nick Sloane

In Australia they really do sell an aerosol starting aid, ether-based I suppose, called "Start ya Bastard". I've seen it on eBay.

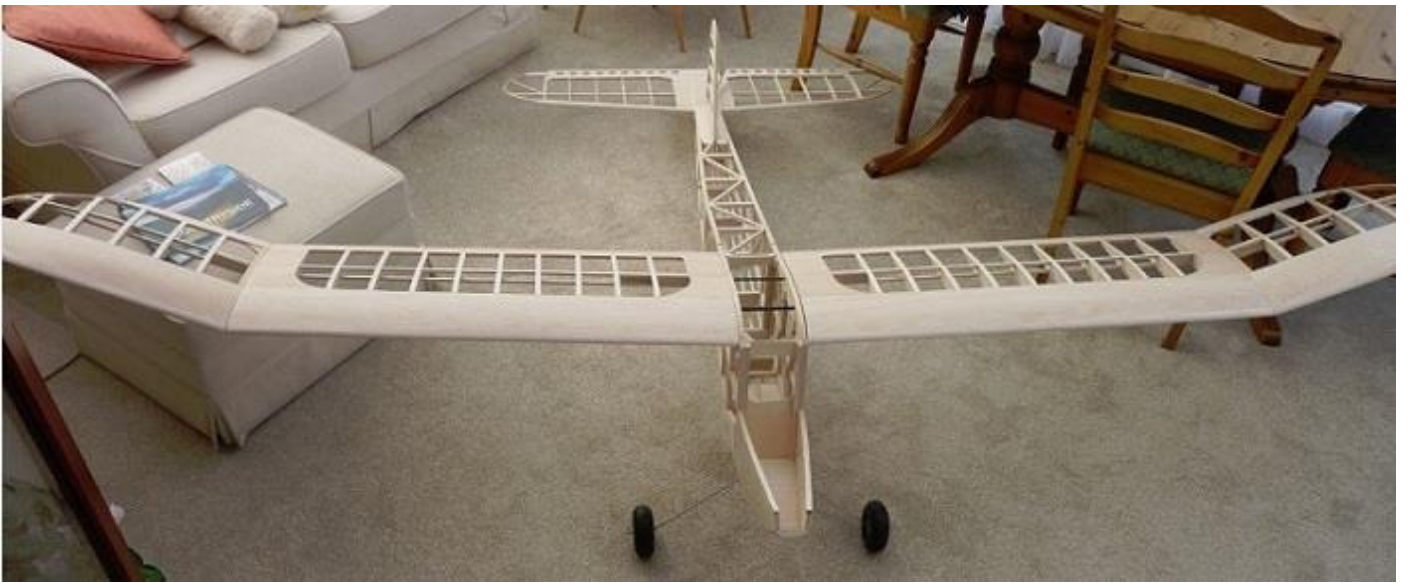
From John Laird

I am well on the way with a 150% scaled up vagabond.

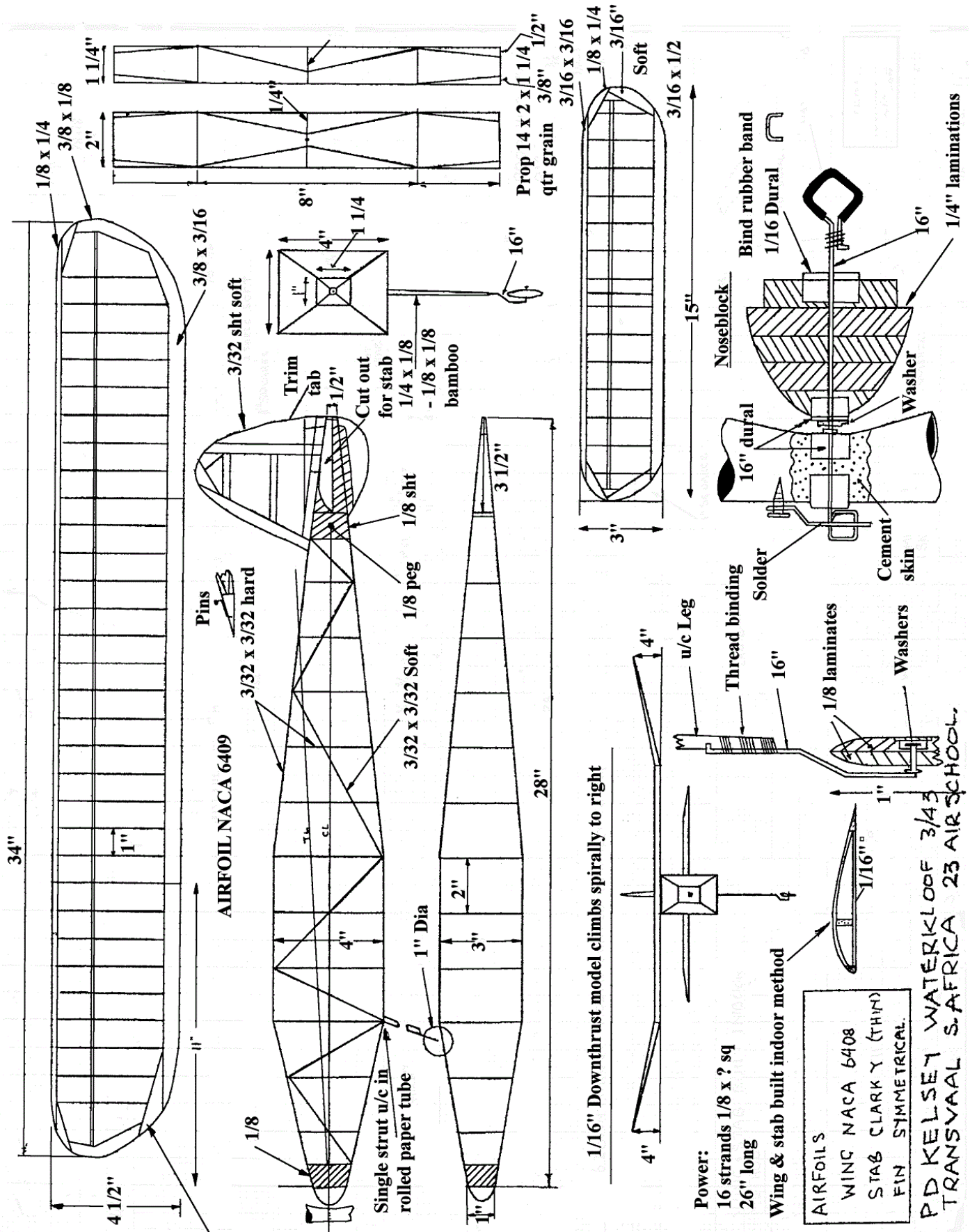
I was so pleased with how the 75" version looked and flew, I just had to build a bigger one, still electric powered.

Construction nearing completion as photos show. Hope to cover same as the smaller one - doped chiffon over mylar.

I will send photos of finished model when completed.







This OD plan was sent to me by Peter Kelsey several years ago, I did not initially include as the amount of work required to the copy was too much at the time so I put to one side and then forgot all about it. I came across it again when clearing junk following retirement and set about reducing file size of the original etc so I could include. When I spoke to Peter again several years ago he related part of his life in RAF and

mentioned he flew Hawker Fury's and I believe derivatives. I have tried to contact him recently without success.

Gone with the wind By Peter Ziegler, Switzerland

This is how the Spring Meeting 2019 of Saturday, March 16th, can be described in Schafisheim.

Nevertheless, after the welcome coffee with croissants and first technical discussions, the action was taken and the models were sent to the ever cloudier blue sky. They all got along with the gusty southwest wind and showed nice and wide flights. Gar movie flights were performed. The MISS CANADA by Andreas Koch served as the camera platform. And the cameras clicked too. The selection of pictures shows the used models in flight, as well as one just finished and one under construction. In addition the link to the film: <https://youtu.be/qUNWiCd4KOE>

When the hunger began to plague us, we were moved to a good restaurant and nursed. There, Frederic joined us with his wife and son. The traffic situation unfortunately did not allow for an earlier appearance. Everyone present really enjoyed this beautiful and warm day after the past stormy and wet weeks and look forward to the next gathering.



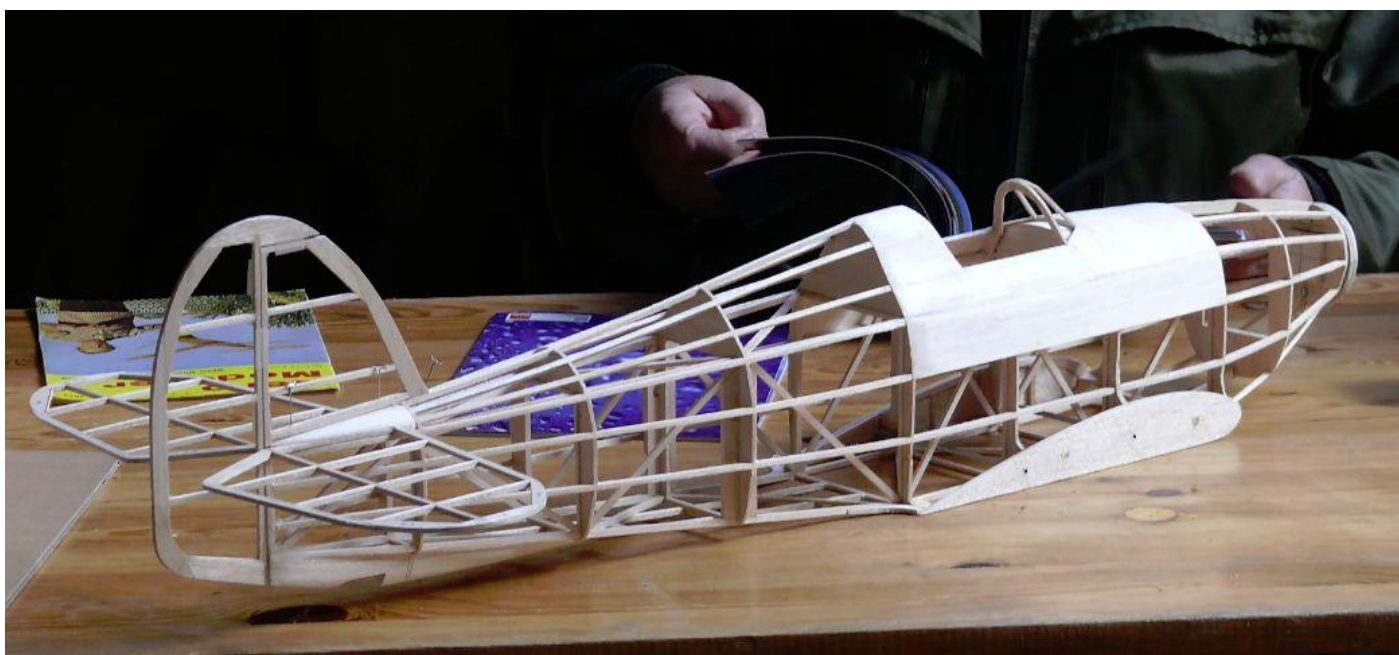
Condor



Sternchen



Corsair



Hawker Hurricane Jumbo Scale under construction



E. Fillion's Wakefield



Javelin



Marabu



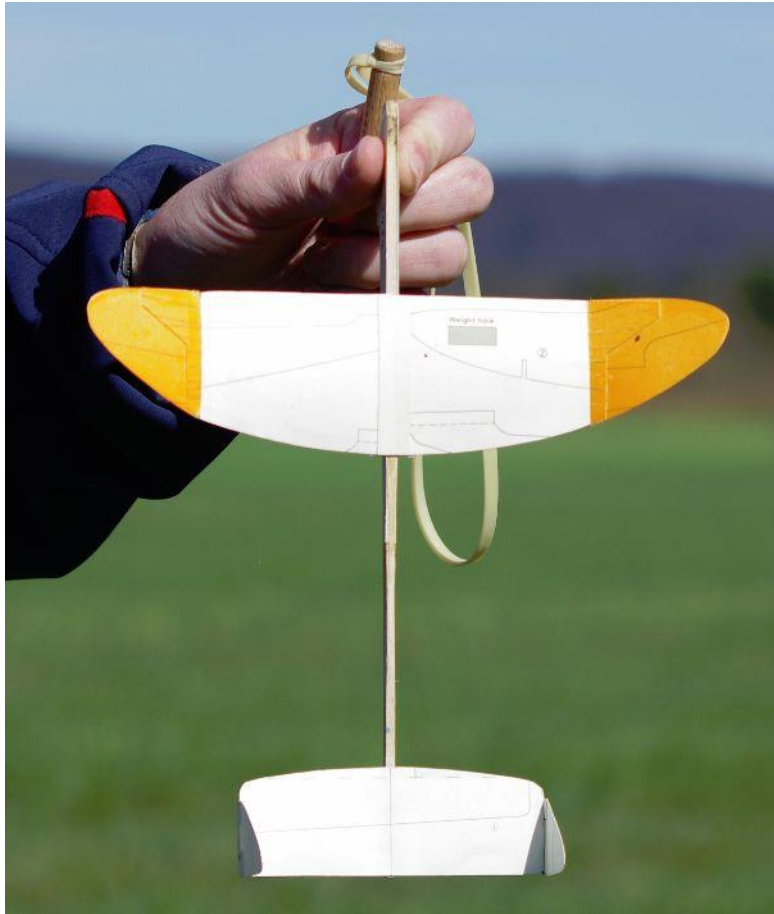
Messerschmitt Me-109E



Miss Canada with camera



Primus P30



Paper glider



Raven
27



Secundus P30



VFM Mothe

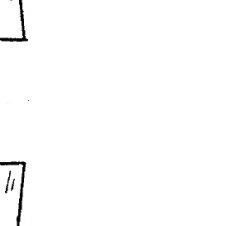
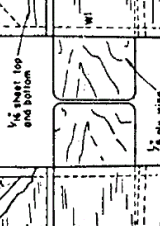
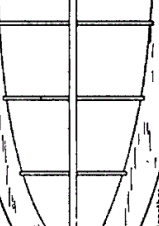
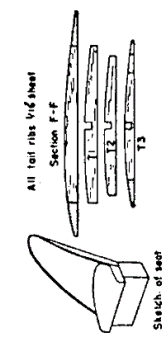
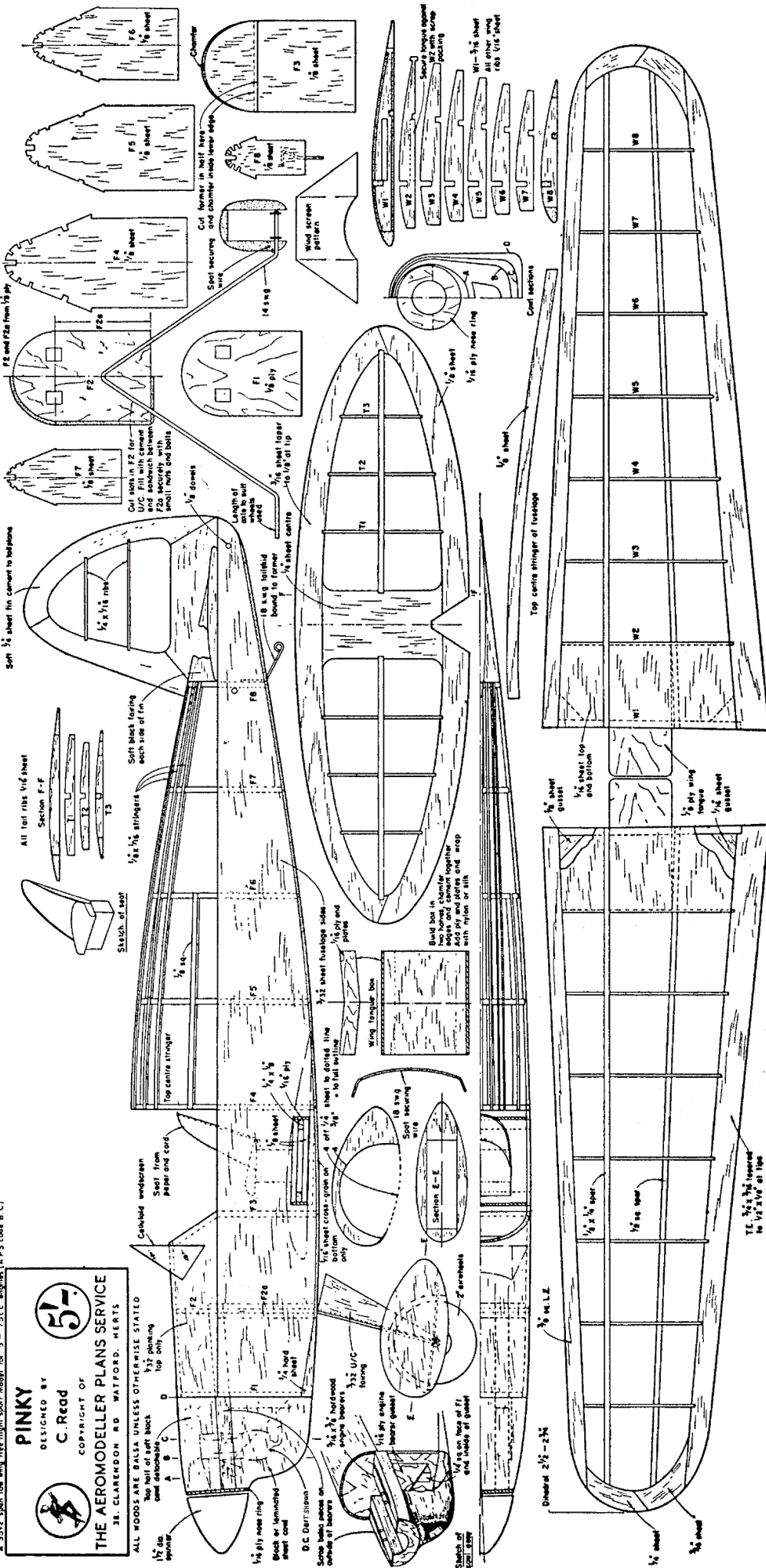


Wanderer

A 351/2" span, (use only three light sport model) for 5-735 C.C. engines (A.P.S. code B. C.)

PINKY
 DESIGNED BY
C. Reod
 COPYRIGHT OF
THE AEROMODELLER PLANS SERVICE
 38, CLARENDON RD, WATFORD, HERTS.

ALL WOODS ARE BALSA UNLESS OTHERWISE STATED
 Top half of left block 1/32 planing top only
 D.C. Drill Bit
 Some bolts place on outside of bores



PINKY. A 35 1/2 in. wing span low wing free flight sport model for .5 to .8 c.c. engines by C. Read from Aero Modeller January 1962



Low wing?! That is the exclamation which so often fills the air after some enterprising aspirant outlines his ideas for a low wing sport free fighter to his fellow modellers. Admittedly these “down under” sportsters can be more of a handful than their conventional brothers, but correctly applied aerodynamic layout produces a model which is just as easy to handle on Sunday afternoons. .

With a .5 to .8 c.c. engine up in front, Colin Read’s little Pinky is a clean playing sportsman as one meets on any field and just look at those lines, did you

ever see a model look the part of a racey single place monoplane as does Pinky? Liberal dihedral and high set tailplane are the secrets of Pinky’s well behaved disposition and no-one can grumble about the straight forward construction.

Commence by cutting the 3/32in. sheet fuselage sides and the formers, from 1/8in. balsa, F2 and two F2a cut from 1/8in. ply and bolt and cement together with the u/c legs between as instructed on the plan.

Assemble the wing tongue box in two halves binding with thread or silk for extra strength. Make up the fuselage, cementing the sides to F2 and F2a, F3 and F4. Add in the tongue box, and the rear formers, to which are cemented the fuselage stringers. Impose the engine bearers and 1/16in. ply gussets, drill the bearer for engine bolts oversize to allow for adjustment to thrust line.

Sheet the fuselage top, forward of the cockpit and the underside (crossgrain). Carve the engine cowling from soft block, hollowing out and well fuel proof internally. Bolt the engine in place and impose the cowl and 1/16in. ply nose ring for final shaping to the fuselage contours.

The top half of the cowl is detachable and should therefore be only spot cemented to be easily removable after shaping. Add the u/c leg fairing. Make and shape the wheel spats by placing the inboard sides over the axles and adding the 2in. airwheels between their spacing washers. Then impose the centres, outer sides and shape. 2in. airwheels are used to keep the C.G. as low as possible, a necessity with this type of model.

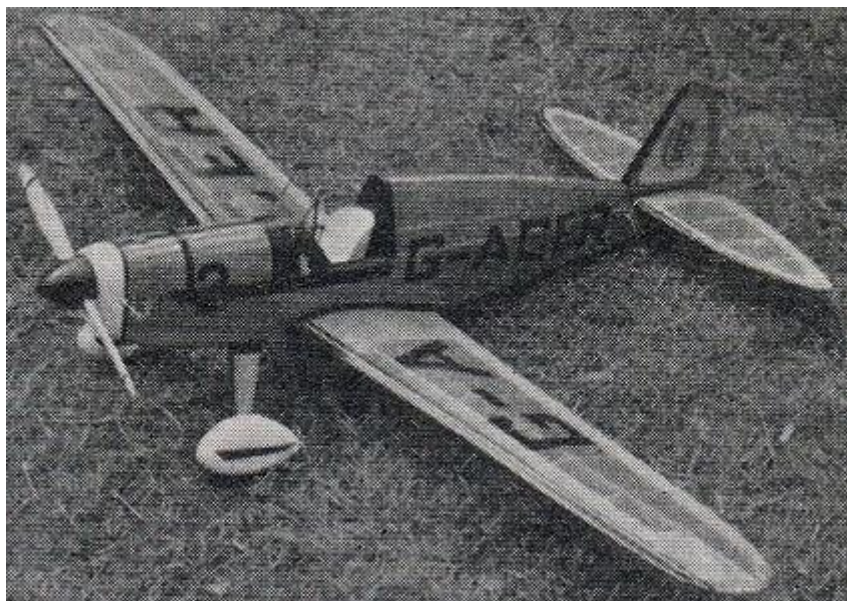
Build the wing by laying down the notched trailing edge and lower spar. Add the ribs, then the upper spar and leading edge, gussets and tips. Cement in place the lower centre section sheet, 1/8in. ply wing tongue and upper surface sheet. Remove from plan and sandpaper all parts.

The tailplane is very easy to build. The leading edge is cut from 3/16in. sheet and trailing edge from 1/8in. sheet. Shape and position on the plan. Add 1/4in. x 1/16in. ribs and lin. sq. upper spar. Sand to lifting section and remove from plan. Do not use heavy wood for this component, as extra weight is as unwelcome at the rear end of this model as at any other. The fin is built, in identical manner, but is sanded to symmetrical section. Assemble the fin and tailplane as one unit, adding the soft block fairing between.

Colin Read’s method of finishing will be of interest to readers, for he is well known for the Concours d’Elegance finishes. Sand the whole structure and dope several times before covering, finishing with extra fine sandpaper. This gives that “smooth” wood effect around the outlines and on sheeted area. One of the prototypes was covered with lightweight nylon from an ex-government parachute and gave the model great strength. However for a normal finish use lightweight tissue for the wings and tailplane and heavyweight for the fuselage. Decorate to personal taste, add cockpit and any incidental details preferred and then the windshield. . . .

Trimming a low wing design is little different from any other F/F sport model. Heavy wheels, a large (8 1/2m. x 5in.) nylon propeller and generous side area compensate for the wing position and correct trim is soon realised. The model should on no account turn to the right as it will tend to spin in. Adjust the thrustline for a left turn, to take advantage of torque effect which will keep the nose up.

The prototype had 2 deg. left thrust, with no downthrust. Mr. Read adds that this is the first model he has known to require left sidethrust and attributes this to a low C.G. position, plenty of side area and extra large propeller. Readers will be interested to know that one of the Pinky prototypes won a first place in the Concours d'Elegance competition at the 1961 Northern Heights Gala, flying well in the rain afterwards.



Spatted wheels, neatly cowled engine and open cockpit go to make Pinky, a trim little craft. Dihedral angle is not so excessive as to detract from appearance. Extra detail adds realism and makes the effort worthwhile.

From John Mellor

You will probably recognise the model as a Wee Shifter which I have built from the Doug McHard plan on Outerzone with a few mods of my own. In fact I know my friend Geoff Bremner is also building one which is nearly complete and Stephen Edwards has been flying one for a while. Also rumour has it that David Lovegrove is also preparing one!! I've spent about 3 months building this one but if I really wanted to I reckon a week would be sufficient.

The model is 30" span (as per the original) but is for RC using Galloping Ghost using a Tobe/Rand actuator – if David and I can get it to fly sensibly – otherwise servos will replace the Rand. Power is Electric (I've forgotten which motor) via a 20 amp speed controller and 850 2 cell



Lipo which is a similar system to that which I used in my Chatterbox. As you can see the model is not yet complete as I want check out the Rand operation before I sheet the remainder of the Fuz. The flying

surfaces are covered in Lightspan which went on pretty well and I will do the fuz. in either tissue or Hobby King film.

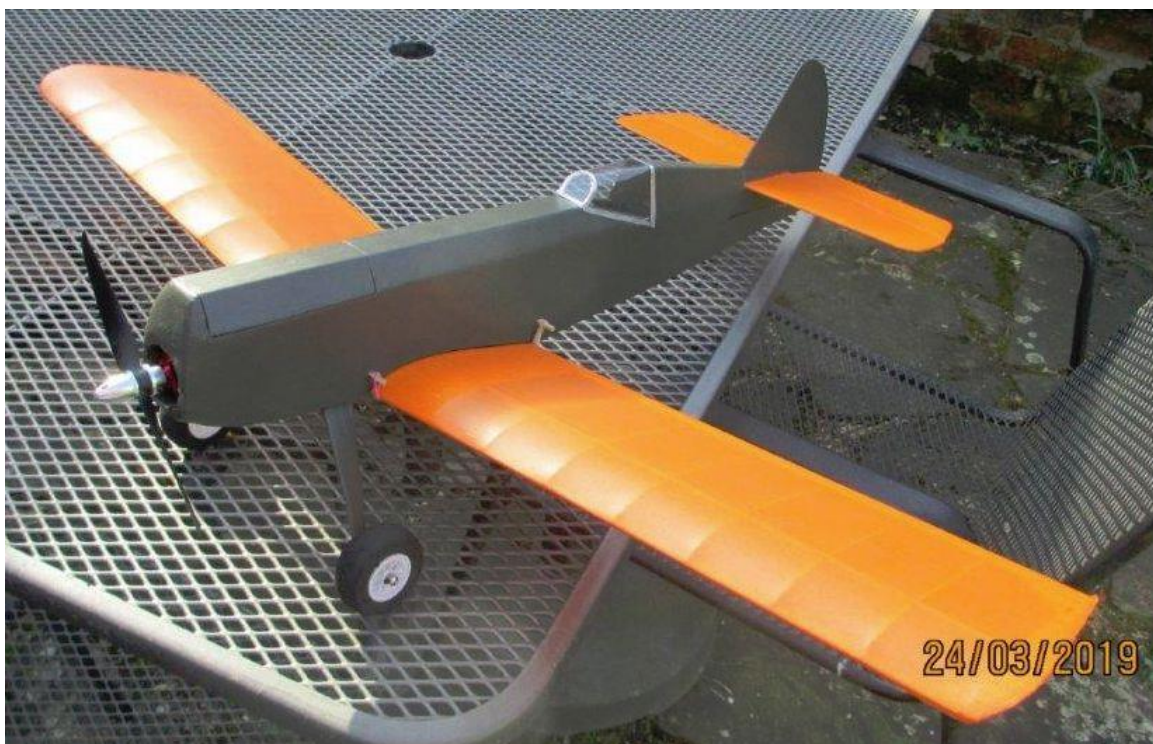
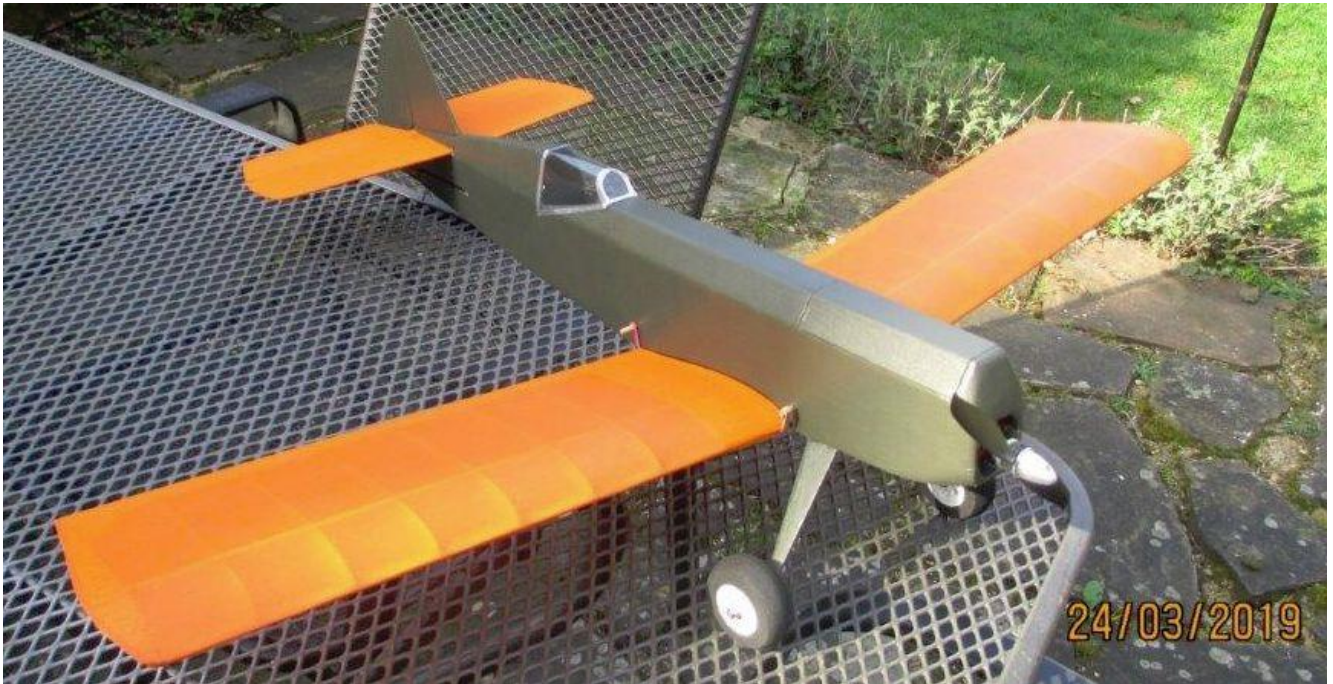
The pilot is purely for show and I will find a proper size one to complete it.

From Geoff Bremner

Here is another "Wee Snifter" which is just about ready for test flight.

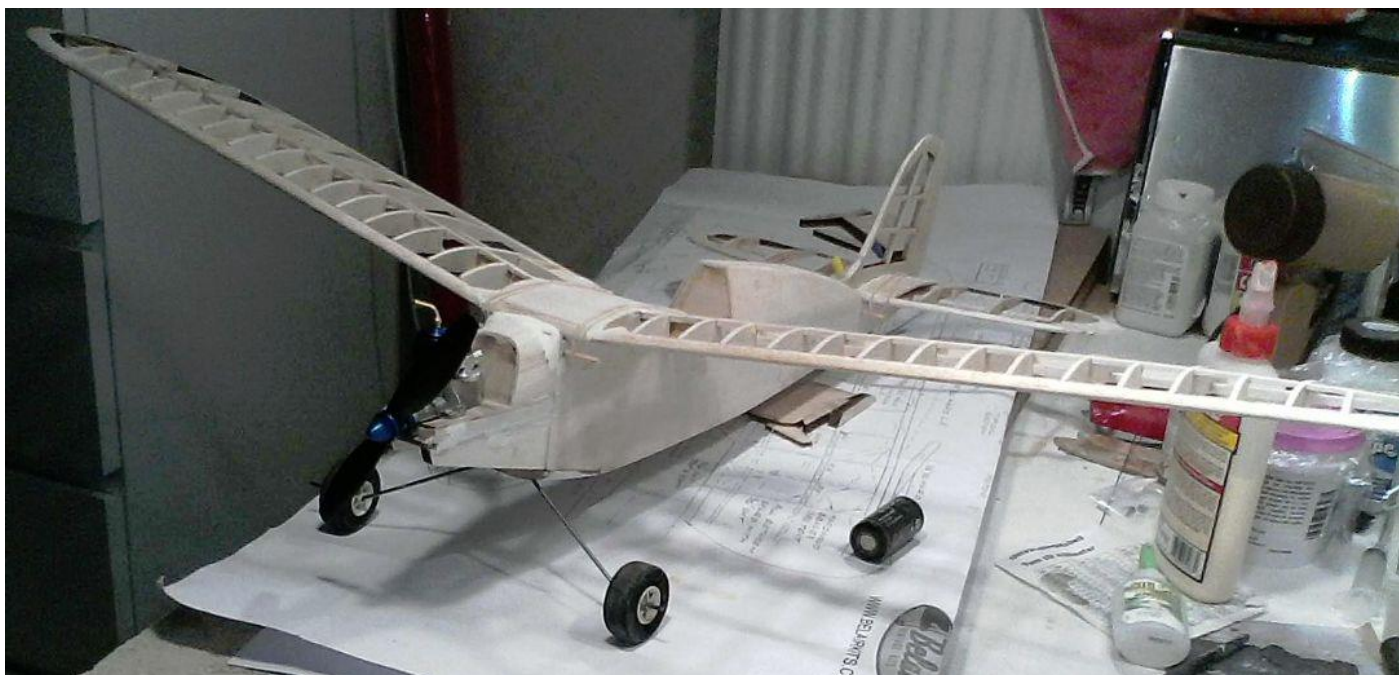
This has the often used good value eMax 2805 motor, driving a 6" X 4" propeller, a 12 amp ESC and a 450 mah, 7.4 volt battery.

2 X Tower Pro 9g servos working 1.5mm carbon fibre pushrods. I added a lower spar to the wing which has 1.75" dihedral each side which makes about 15 degrees total. It is covered in Litespan and weighs 10 oz. Needs a bit more decoration



From Jörgen.

Hi James got my Miss35 earlier this week now almost ready to cover short kit from Belair, I have done a Super Scorpion from Ben Buckle but I haven't been able to take outside because of the weather to big to handle indoors .



Hi again better photo weather today which I was a better photograph some pic,s of my Scorpion larger then my usual builds and I choose Solartex for covering rather the Silk and dope such a large area take lot of dope and my cramped shop without ventilation had not been good for my Health.

Jörgen.





Hi James today my Miss 35 was ready with the SAM 35 engine all up weight is 483 grams with single channel Esaki flite tissue Randolph dope and rattle can for the fuselage waiting for more calm winds Before testflight.





From Mark Banfield

Last week saw the maiden flights for both the Cardinal (traditional balsa build, but Solarfilm covering) and the Sportster (decidedly non-traditional build using foamboard). Both models flew well. The Cardinal wafts along nicely on just a whiff of throttle, whilst the Sportster is much heavier at 1.2kg and needs a bit of oomph to power it along, which is provided by a Turnigy G10 810kV motor. This motor is much better than the original Turnigy Park 450 1200kV which was too light and not powerful enough.

The photos below are not brilliant quality, which I put down to having to take them one-handed while I was flying with the other hand. All good fun. The day ended without mishap and happily the black bin bags did not need to make an appearance.

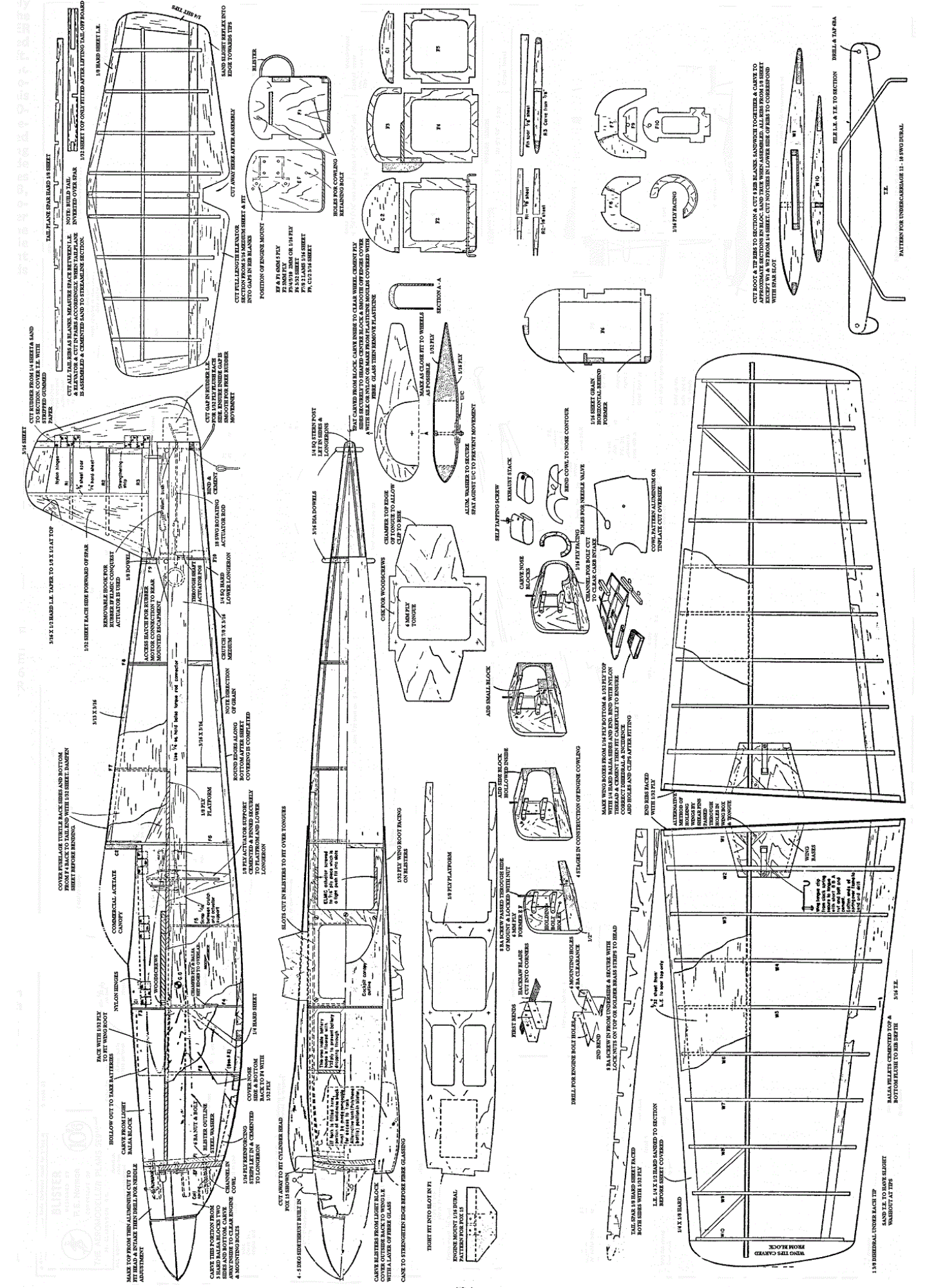




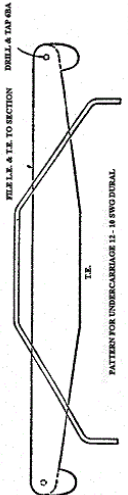




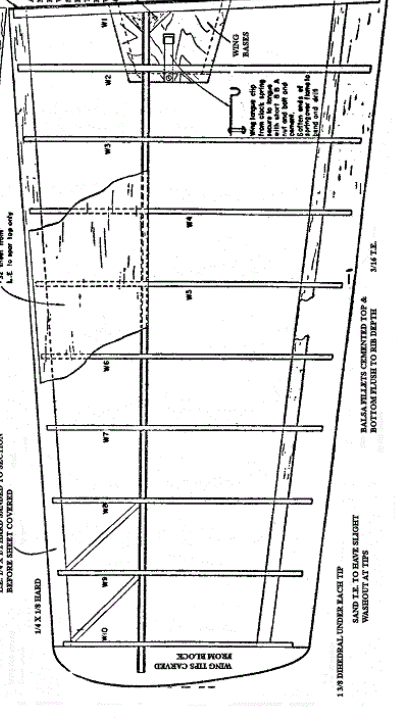
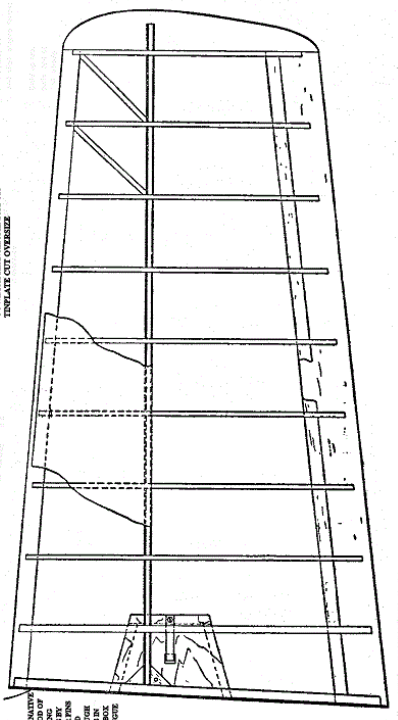
The following is of interest as an R/C designed and built by P E Norman. A rugged build with most parts knock offable following his free flight designs. This plan was extremely difficult to replicate so as to be readable etc hence parts of plan being shown separately.



CUT RIDGES FROM 1/4 SHEET L. SAND STRIPPED DOWNWARD. CUT IN 1/2\"/>



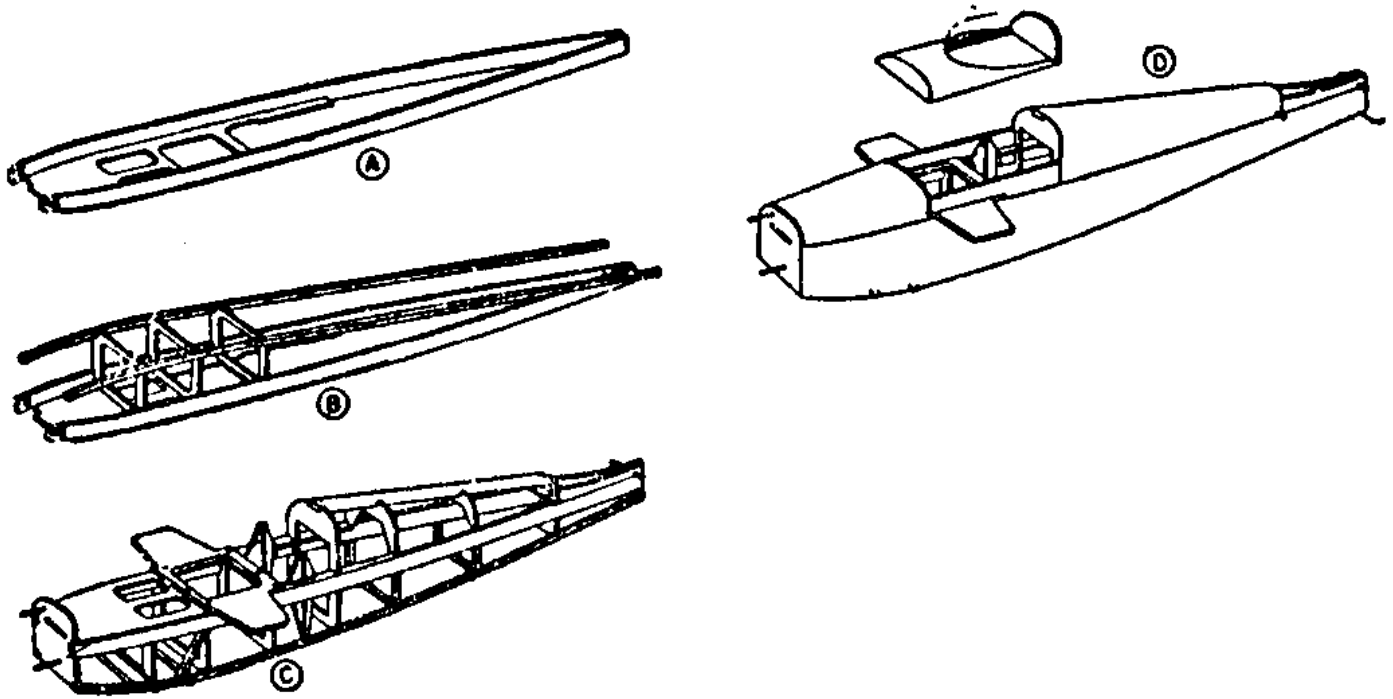
PATTERN FOR UNDERCARRIAGE 11 - 18 SWG DURAL.



1/4\"/>

1/4\"/>

Blister 42 1/2" span designed by Aeromodeller specification for a good looking near unbreakable thrilling sports radio model to suit 2.5 cc engines, by P E Norman from Aero Modeller March 1962

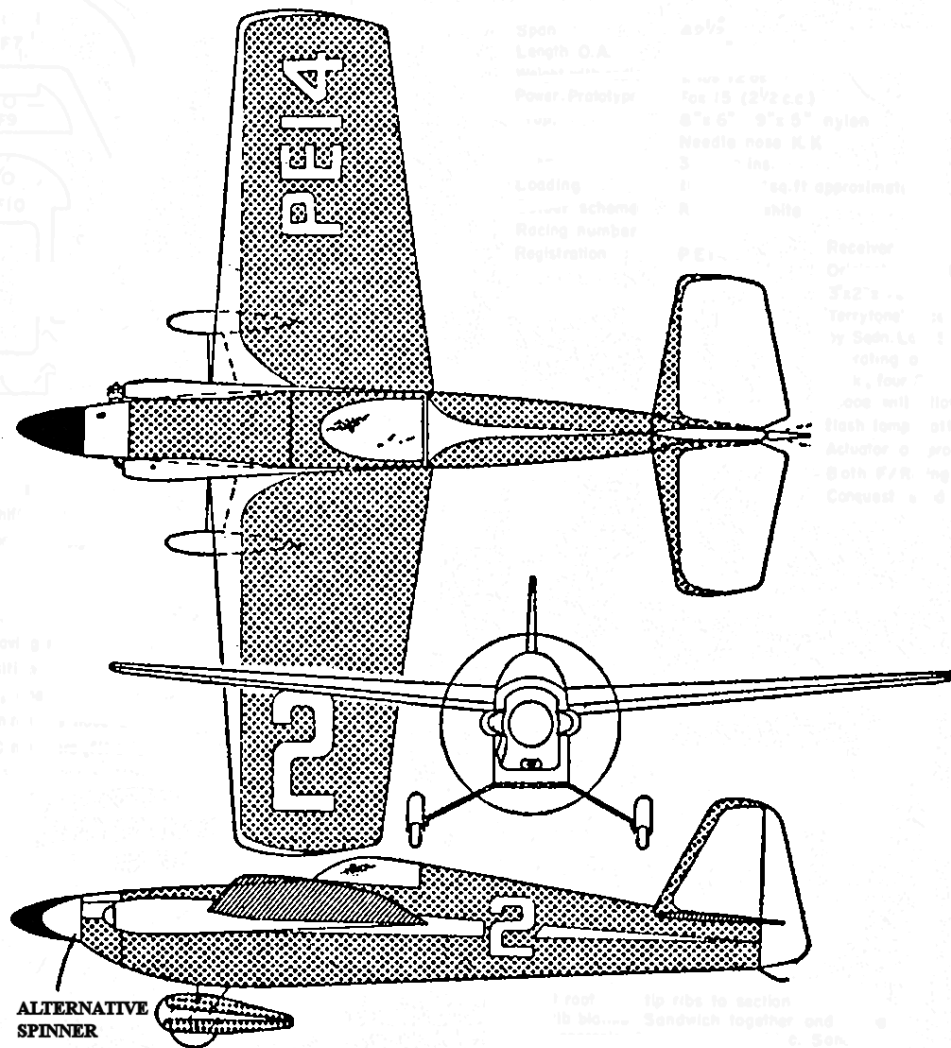


A
Pin down ply platform, glue crutch members in place leaving over long at front and pinned temporarily at rear.

B
Fit formers F2, F4 & F5 in the inverted position add lower longerons retaining with elastic until dry.

C
Turn structure over and glue F1 F6, F7 and F8, add raised portion of crutch at rear end. Add members at rear of fuselage, stern post, undercarriage and tail dowels and then fit and secure wing tongue platform
Add strengthening members at front end of bottom longerons. Check for true alignment. Add turtle back spine and radio /escapement bulkhead.

D
Construct cockpit frame C1 and C2 and sheet coaming. Carve upper front fuselage and hollow out where indicated for battery, glue in position. Add two strips over tongue between front and F6. Block in bottom of fuselage each side of F2 between longerons. Fit nose retaining bolts and lightly secure with nuts. Ensure that all internals ore complete (escapement etc), sand frame end commence sheeting with 1/32 ply at nose sides and bottom, then cover the rest of the fuselage with 1/32 sheet.



Fuselage completion

Sand smooth, ensure that cockpit frame fits snugly and hinge with nylon tape. Make spring snap for closing as for wing clips. Cover complete fuselage with light nylon chiffon or silk. Carve engine blisters and hollow out cement securely incorporating the tank if desired on port side. Cover front part of blisters with fibreglass also underside of fuselage in region of U/C. Refer to Aeromodeller article P220, May 1959. Carefully fit engine having made mount and align engine former and engine in position.

Hold temporarily with the springs and nuts, check angles. Build up nose round engine as Shown, then remove nose unit parts and cover with fibreglass. Form U/C members, fit axles and wheels.



This model is the result of producing a radio controlled single channel machine based on characteristics of some of the American Goodyear Racers, but is not necessarily a scale model of any one machine. It is an attempt to make an aircraft which would be suitable for pylon racing, but still have the essential characteristic of immense strength, fairly straightforward construction, pleasing appearance and not too violent flying qualities.

It departs a little from normal construction practices, in so much that the forward portion of the fuselage is built on a plywood platform, which in turn serves to carry (if needed) the fuel tank, the batteries (DEAC's), the radio receiver, the wing tongues, and possibly the actuator, this unit at the same time prevents the fuselage "bursting" in the event of a heavy crash.

Wings are made in two halves and fit onto the tongues and are held in flight position by spring clips or sheer pins; the tail and fin/rudder unit in one piece is easily knock-offable and adjustable, and the prototype sports a 2 in. diam. needle nose spinner and streamlined wheel spats.

The battery radio unit and actuator are easily accessible by lifting the hinged cockpit canopy and the model is eminently suitable for some of the small lightweight receivers coming onto the market. It is nylon covered and should not be too great a problem for a fairly experienced modeller to tackle, although practice and previous operation of a radio model are a "must."

The prototype is powered by a Fox 15 glow motor and the whole of the motor unit and mount is detachable and held in position on the front of the fuselage by spring loaded bolts, this mounting being adjustable by means of slight packing which may be built in when the earlier flying tests have been completed.

The model is fast and has a tendency to neutral stability and is sensitive to the rudder control. The original is finished in red with white trim racing numbers lettering etc. and has white under-surfaces to wings and tail (for easy direction visibility when flying) with natural black plastic spinner and presents a very attractive sight while performing in the air.

Before commencing the model, study the plans and construction details carefully.

The main strength of the fuselage lies in the use of a 3 ply platform which serves to carry units such as the tank, receiver batteries and actuator and wing tongues.

Good quality aircraft plywood should be used throughout construction, preferably resin bonded if obtainable and the use of a long reach fretsaw is to be recommended.

Onto the platform, two strong crutch members are securely glued, followed by the fitting and gluing of several formers. All of this operation is done with this lower portion of the fuselage laying inverted.

Then the lower longerons are fitted and the strong 5 ply front former, glued in place. The construction drawings will then show that having completed this lower part, it is now turned the correct way up, and the upper portion tackled.

As will be seen, some block balsa is employed and these pieces should be shaped externally to the approximate shapes with a sharp knife, wood rasp and varying grade sand papers. Internal work may be done with a sharp cutting out knife, or very sharp wood gouges.

In the case of the space in the nose block for the battery containing portion; should this seem too difficult, it may be overcome by carving the front portion from solid block and fabricating the battery compartment by building up with 3/16 in. planks and then carving to shape when glued.

It is highly recommended that Cascamite glue should be used throughout in the main construction parts (it is fuel proof and very strong and easy to work although the time taken for drying is longer than balsa cement). The designer used it almost entirely in the fuselage and wing frame construction using Britfix for such parts as the tail unit, and sheet balsa covering.



The wing construction uses the knotching system for ribs and mainspar and the mainspar itself is full depth and employing P.E.'s usual method of a sandwich of 1/32 in. 3 plywood and 1/8 in. hard balsa glued together securely with Cascamite. All knotches in mainspars are shallow to preserve strength and those in ribs are deep.

Great care in line up, dihedral angle and incidence is essential in a fast model and these should be checked frequently during building. Surfaces should be carefully sanded before carving to ensure smooth clean lines so essential to a racing aircraft. The nose blocks

again should be roughly cut out inside to clear the installed

engine, glued with Cascamite to the engine former and when thoroughly dried, carefully shaped externally to follow the lines.

The engine should be thoroughly “sealed” with Sellotape etc. before being fitted in the mount to prevent sandpaper and dust from gumming up the works. The complete fuselage is fuel proof doped. The surfaces are covered with nylon chiffon or silk and given a coat or two of shrinking fuel proof dope and then fuel proof colour dope. When installing the radio batteries etc. ensure that every lead is anchored against vibration breakage etc. and carry out the usual checks and rechecks. Check the balance point of the completed model and add ballast as necessary fore and aft to bring the weight within about 1/8 in. as shown on plan.

Check the model for glide, taking the normal precaution of choosing fairly calm conditions and reasonable length grass to shock absorb those first few bad launches. The model will glide fast (it is 18 1/2 ozs. per square foot and has a thin wing section) so make sure your launch is sufficiently powerful to the necessary thrust. Trim the model to avoid any nose- up tendency (the model is designed and rigged to fly with a nose down attitude for speed and penetration) and also that there is no left or right turning tendency (a slight amount of wing tip warping by finger coaxing will cure this).



When glide is correct, prepare for first test flights by running the engine quite - slowly and well four stroking. A glow motor speeds up in the air, so do not allow motor to rev at all fast. “Make haste slowly” should be a very good slogan when dealing with a machine of this type.

When you have had a few “slow” flights and found out if there is to be any correction on thrust angles, weight distribution etc. then you may gradually speed up your motor and you will be rewarded with a really snappy mount.

One final word, do take all precautions to avoid accidents to other people and property, remember you have spent a good deal of time, effort and money, and there isn't much point in losing everything just through sheer carelessness on your part. The public is foolish enough as it is and enjoys nothing more than a good prang so, do your level best not to oblige them!



Comparison of first prototype (too hot to handle for other than “P.E.”!) below, and plan model above show changes through two years of development. Prototype Sarll Rx, the “Terrytone” seen encapsulated and on escapement bulk. head at right, this after a 300 ft. dive. Note NO damage to model! This is a great model, likely to become the Sunday flier’s favourite.



P E applies turns on escapement rubber with son Marcus helping

SALISBURY CLUB SWAPMEET AT ALDERBURY 13.4.2019.

Starts at 09:30

Ends at 12:00

Venue Alderbury Village Hall,

Location Southampton Road, Near Salisbury, SP5 3AD

Summary Salisbury Model Flying Club Will be holding a model aircraft Swap meet

Additional Info dealing with all types of flying models, engines, radio control equipment and accessories.

Etc. Now is the time to sort out those unwanted models and turn them into spending money! Doors Open at 9.30am until 12.00 noon. 9.00am for vendors only. Tables only £7 includes admission for one person only.

Admission - Adults £4 Juniors Free Refreshments available - Tea, Coffee, Bacon Roll. For Pre-booking and further detail

Website salisburymfc.org.uk

Contact Information

Name Kevin Easter

Phone Number(s) 01725 552873

Email Address easterislandbb@tiscali.co.uk

Subject : Cocklebarrow Vintage R/C Events 2019.

7 July

18 August

29 September

Cocklebarrow Vintage R/C

Signposted from Aldsworth Glos. on the B4425 between Cirencester/Burford and off the A40 between Northleach and Burford [follow SAM 35 signs].

All types of R/C up to 1969 sport flying no competitions.

BMFA insurance essential [A certs. not required]

Tony Tomlin 02086413505 pjt2.alt2@btinternet.com

Raynes Park MAC Website by Alan Holmes

The Raynes Park MAC has been without a website for some time due to the loss of use of the host we were using. Having now found a suitable new host the website is up and running again. You can find the site at www.raynesparkmac.co.nf

I have added some new material and more will be added in due course. The current issue of "Sticks and Tissue" can once again be viewed there.

North Cotswolds MAC August event from Gray

I'm pleased to announce that the North Cotswold MAC's Fly For Fun 2019 event will be held on Aug 10th and 11th at Far Heath Farm, Moreton-in-Marsh. This will be a special one, as we will be celebrating the club's 70th anniversary.

We'll be holding two special events alongside our regular programme, with informal judging and prizes - on the Saturday for Vintage and Nostalgia models and on the Sunday, 21st century designs only!

We'd be very grateful if you could give this an early mention in S&T when you can. I'll send further details after the Xmas mayhem has subsided.

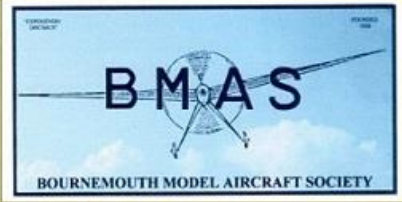
Shilton flying group 2019 fly in dates

May bank holiday vintage fly in May 26th + 27th
e soar glider fly in July 13th + 14th
autumn vintage fly in Sept 07th + 08th

Hope to see you there, regards Boycott and Nick

Boycott Beale bealekraft@outlook.com

BMAS Indoor FF at Allendale please read both "poster" as there is a change of venue from May.



INDOOR MODEL FLYING

TUESDAY 25th SEPTEMBER 2018
TUESDAY 23rd OCTOBER 2018
TUESDAY 27th NOVEMBER 2018
TUESDAY 29th JANUARY 2019
TUESDAY 26th FEBRUARY 2019
TUESDAY 26th MARCH 2019
TUESDAY 30th APRIL 2019
TUESDAY 28th MAY 2019

7pm to 10pm

ALLENDALE CENTRE
HANHAM RD. WIMBORNE BH21 1AS
FREE CAR PARKING IN PUBLIC CAR PARK IN ALLENDALE RD

FREE FLIGHT ONLY

COMPETITIONS incl. GYMINNIE CRICKET LEAGUE
ALL FLYERS MUST HAVE BMFA INSURANCE

FLITEHOOK NORMALLY IN ATTENDANCE
Adult Flyers £8 Junior Flyers £3 Spectators £1.50

CONTACTS: John Taylor Tel.No. 01202 232206
Keith Fredericks, e-mail: keithfred44@btinternet.com

Possible Alternative Venue for BMAS Indoor Flying Sessions

With ever increasing costs for the hire of the hall at Allendale and the subsequent financial loss to BMAS, we have been actively searching for an alternative venue that would reduce our outlay but still provide good amenities for flying. We think we may have found one.

The details are:

Bournemouth Friends Meeting House

Wharnccliffe Road, Boscombe BH5 1AH

Hall Dimensions: Width 34ft

Length 38ft + 11ft deep stage area

Full Height 6metres (19.5ft)

(Smooth ceiling with no obstructions)

There is also ample car parking on site.

The Hall is available on Monday & Wednesday evenings.

If the response is positive we will arrange a trial session some time in May (the Allendale session for May having already been cancelled)
We would be grateful for your feedback.

**Thanks
BMAS Committee**

FLITEHOOK

Indoor Free Flight Meeting

West Totton Centre, Hazel Farm Road, Totton, Southampton, SO40 8WU

Contact: Tel. 02380 861541

E-mail flitehook@talktalk.net

Café on Site

Flyers £8 Juniors & Spectators Free Flyers must be BMFA Members Sundays 10.00a.m. to 4.00p.m.

2019

14th April 2019



INDOOR F/F MEETING

Waltham Chase Aeromodellers, in association with South Hants Indoor Flyers, are pleased to announce the continuation of the Indoor F/F Meetings held at the Main Hall at Wickham Community Centre, Mill Lane, Wickham, Hants PO17 5AL. These meetings will be held on the following dates:

Tuesday, 2nd. October 2018
Tuesday, 6th. November 2018
Tuesday, 4th. December 2018
Tuesday, 8th. January 2019
Tuesday, 5th. February 2019
Tuesday, 5th. March 2019
Tuesday, 2nd. April 2019
Tuesday, 7th. May 2019
Tuesday, 4th. June 2019
Tuesday, 2nd. July 2019

All meetings will run from 7.00 p.m. to 10.00 p.m. The Main Hall at Wickham Community Centre is particularly suitable for indoor free flight models of all types, with a ceiling free of obstructions. Tables and chairs will be available in the hall, the organisers are always grateful for assistance with moving furniture. A hot drinks machine is available on site.

Admission to the meetings will be £5 for fliers and £1 for spectators, whilst accompanied children will be admitted free. Junior fliers will be charged as adult spectators. Fliers will be required to show proof of insurance.

No R/C models may be flown at these events.

Flitehook, who carry a large stock of indoor models and accessories, will attend many of the meetings.

Waltham Chase Aeromodellers look forward to welcoming all indoor F/F fliers to these events.

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane, Waltham Chase, Southampton, Hants.
(Tel. 01489 895157)

(e-mail: alan@wcaero.co.uk)

or see our web site: www.wcaero.co.uk



Miss 35 parts set and plans

Ref: otmiss35

Miss 35, exclusive SAM35 model designed by David Banks. Laser cut parts set and full size plans. Includes formers, fuselage sides, cowl cheeks, bulkhead, gear mount, fin support, tailplane and fin outlines, wing ribs, tip shapes and many smaller parts. Builder to supply stripwood/wire and covering.

Designed for the new SAM engines - [click here for details](#)

Note to builder - DO NOT use the plan in Aeromodeller, as they were unable to get the scale correct of their magazine printed plan. A correctly dimensioned plan is included with your parts set

The SAM35 "Miss 35" has been designed around the Red Fin special edition motors

Price: £50.00 Inc VAT
55.00 USD | 59.19 EUR



Full size plan included.

KK Scorpion - 44" cabin model

Ref: ot-kkscop

Parts Set for the attractive Keil Kraft Scorpion. Includes all the shaped balsa and plywood parts required to build the basic airframe, including bulkheads, formers, wing ribs, shaped trailing edge for wings and tail. Shaped outlines for fin and rudder, sub fin, cowl cheek sides, dihedral braces, gussets, plus many smaller items.

Builder to add their own stripwood and covering.

KK Scorpion Specification

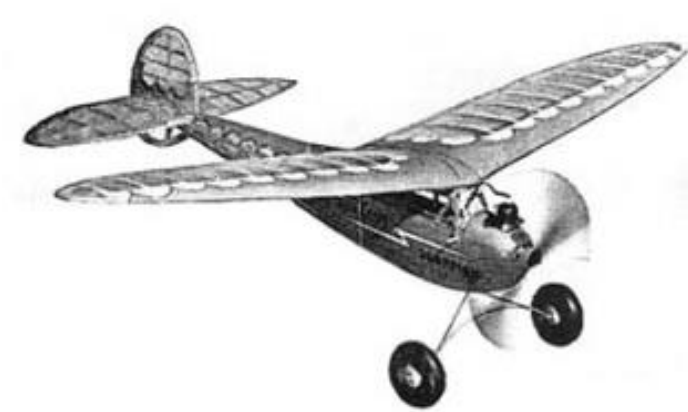
Wingspan - 44 inches

Suitable for 1.3 to 2.5cc engines or conversion

RRP: £55.00 Inc VAT

Price: £55.00 Inc VAT

60.50 USD | 65.11 EUR



Super Scorpion - 66" cabin model Parts Set

Ref: ot-kksupersco

Parts Set for the attractive Keil Kraft derived Super Scorpion. Includes all the shaped balsa and plywood parts required to build the basic airframe, including bulkheads, formers, wing ribs, shaped trailing edge for wings and tail. Shaped outlines for fin and rudder, sub fin, cowl cheek sides, dihedral braces, gussets, plus many smaller items. Includes plan, which shows RC Assist conversion. Builder to add their own stripwood and covering.

KK Super Scorpion Specification

Wingspan - 66 inches

Suitable for 3.5cc engines or conversions

Price: £75.00 Inc VAT

82.50 USD | 88.79 EUR



Air Trails Sportster Cabin Model

Ref: ot-airtrsport

Air Trails Sportster by Ben Shereshaw from Air Trails 1939 - 46in span Cabin model. Parts Set includes all shaped balsa and plywood parts to complete the airframe, such as fuselage sheeting, bulkheads, formers, wing ribs, tip shapes for wing and tail/fin, wing joiner boxes, plus many smaller parts. Includes full size plan

Price: £55.00 Inc VAT

60.50 USD | 65.11 EUR

Linnet Parts Set 43" span

Ref: ot-linnpk

Quirky looking design by GR Woollett published in Aeromodeller January 1954
43in span suits 1.3cc size motors. Tricycle undercarriage and low wing, looks semi-scale and makes a pleasant change from the usual high wing cabin job.

Part Set includes all the laser cut balsa and plywood parts, such as cowl cheeks, fuselage sheet, formers, bulkhead, LG mount, shaped gussets, fin outlines, wing and tailplane tips, wing ribs, sub fin, wing seat, plus many smaller items.

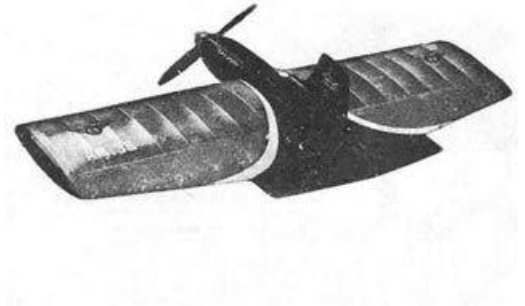
Parts fit original Aeromodeller plan which is not included - shown for reference only. Builder to supply stripwood and covering to complete basic airframe.



Mercury Toreador CL Parts Set

Ref: ot-kktore

Parts Set for the **Mercury Toreador** model. Suitable for Stunt or Combat. Laser cut parts will save you hours of tedious cutting and include fuselage sides, fuselage top & bottom in one piece 1/2" balsa, bulkheads, formers, fin/rudder, wing tip shapes, wing ribs with additional tab to allow the symmetrical wing to be built on a flat board without packing each rib, bellcrank mount, spinner ring, shaped trailing edge and elevator.



Also includes **full size plan, and canopy, vac-formed in clear plastic.**

Specifications Wingspan - 36 inches, weight around 20 oz and suitable for 2.5 to 3.5cc engines (AM35 shown on plan). Builder to supply small amount of stripwood to complete.

Price: £50.00 Inc VAT
55.00 **USD** | 59.19 **EUR**

Regards,
Leon Cole
Belair Kits

Tel: +44 (0)1362 668658

www.belairkits.com

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Dens Model Supplies



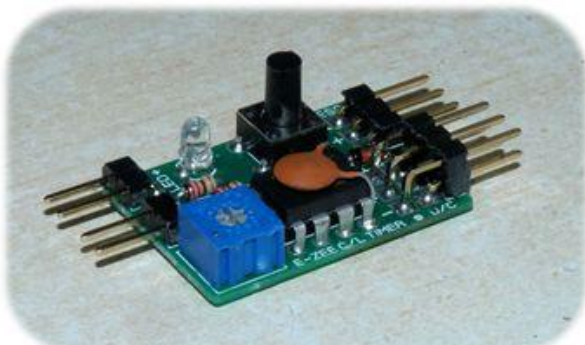
Traditional CL Kits including the ACE + Plug & Play Electric CL Starter Kit...just add glue and a battery !!



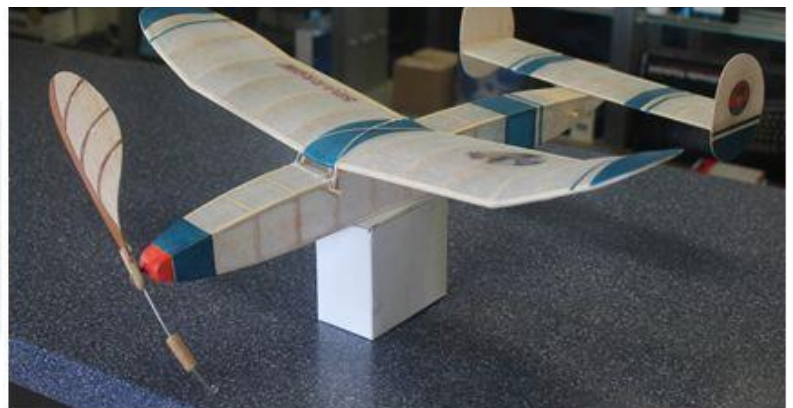
*Tinplate CL tanks....Bellcranks,
Lines, Handles, Cloth Hinge Tape,
Leadouts etc*



Cox Engines & Spares



Electronic Timers for CL & FF



Laser Cut - High Quality FF & RC Kits



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www.densmodelsupplies.co.uk
Or phone Den on 01983 294182
for traditional service