

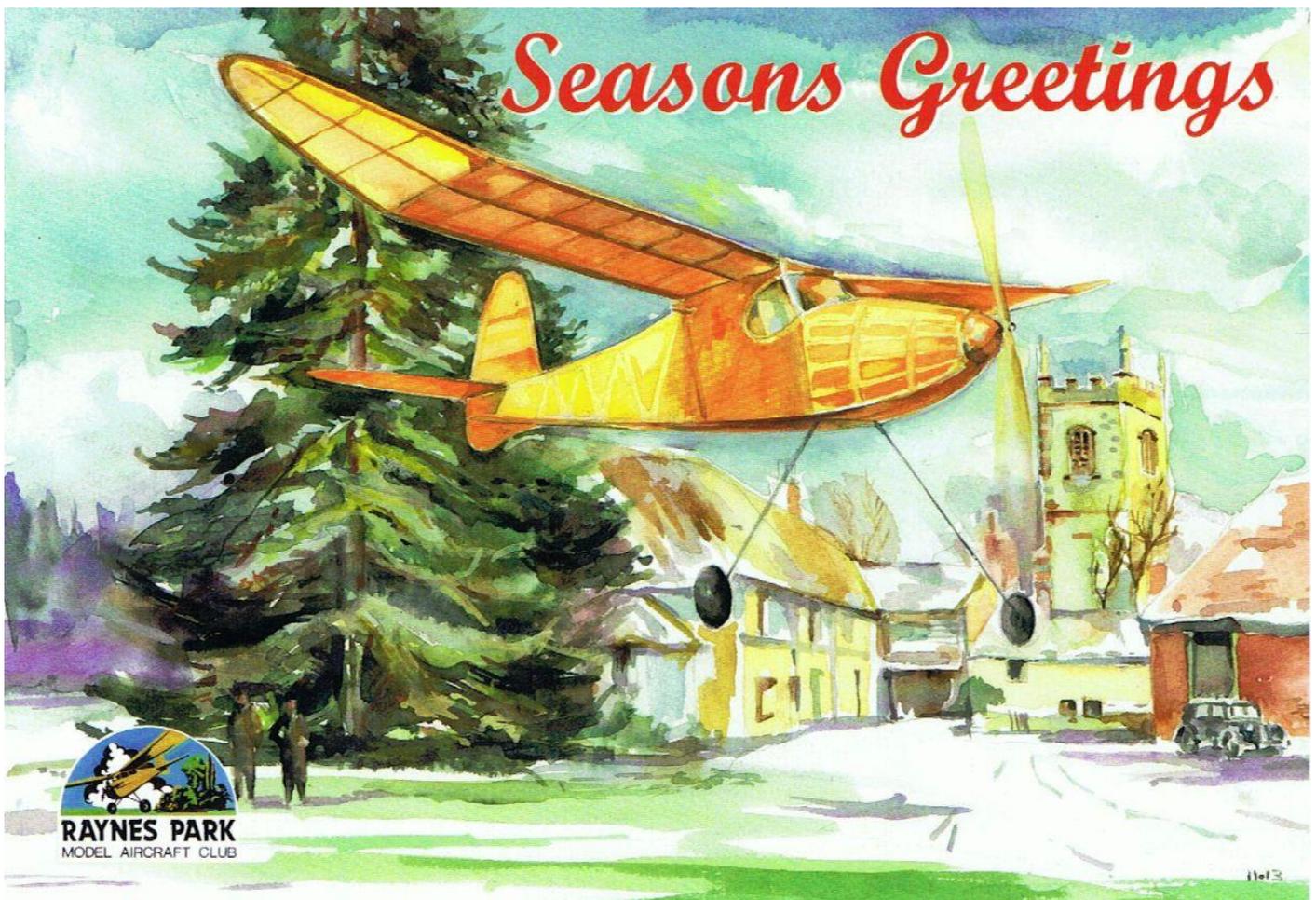
Sticks and Tissue No 85 – December 2013

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.



The Raynes Park MAC Christmas card featuring the Keil Kraft Competitor designed by Bill Dean

Ron Firth and Allen Brickhaus from Peter Branigan

I'm sorry to have to break the news that Joan Firth phoned me today to tell me that Ron passed away on Friday evening (20th December). Although he was known to be on a downward slope with the incurable idiopathic pulmonary fibrosis that had wracked him for the last three or four months, in the end he deteriorated unexpectedly rapidly in the hospice where he was undergoing assessment. As a Fellow and past Chairman of the BMFA, much will be said in coming months about his long service to model aviation, but he will surely be remembered with affection also by many enthusiasts for his practical devotion to and his many publications in support of free flight modelling and plastic modelling. I for one shall miss him greatly both as a friend of many years and not least for his Northern brand of common sense.

I hate to be the bearer of such sad news...

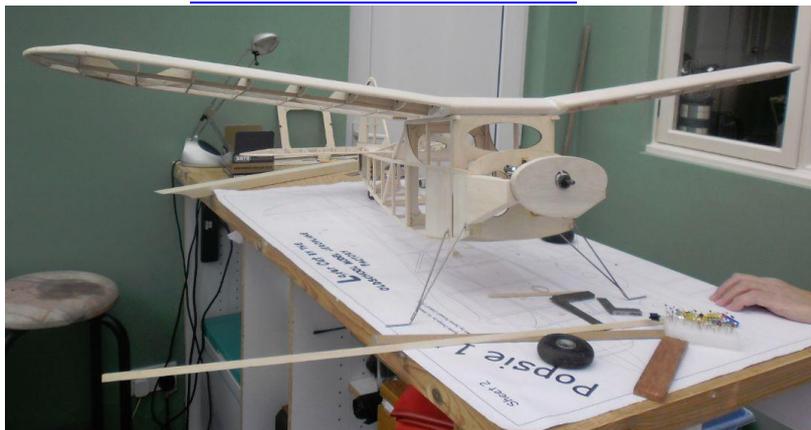
I was very shocked to be informed that Allen Brickhaus had passed away this morning of a heart attack. Please pray for his wife Kathy and the rest of his family during their time of loss.

Rest in Peace Allen.

OSMAF

I called into Derek Foxwell's just before Christmas to buy a few of his new Dizzy 36" gliders which four of us will be making for the DMFG FF gliding event we will be holding probably monthly during 2014.

Whilst there I took a couple of photos of his new kit a 1.5 times Popsie. He hoped to have it available by now but a few problems / difficulties with the design and cutting has slowed him down however it should be ready February. 02086471033 or derekfoxwell@btinternet.com



In the Beginning by George R.Vale

Having survived 60 years of an addiction to things that fly, I've been chewing over how it all started for me, back in my days of short trousers. My first sight of flying models came when I was aged about 7, and the kids in my street had a brief craze for slide-together balsa gliders from the toy shop. I had one too, but the modelling bug didn't bite at that stage. Not surprising—not really modelling, is it? A year or so later two

young chaps appeared on the local sports field and flew powered free-flight models. One was a Slicker Mite, the other similar but straight-edged, perhaps a Skylon, both with tiny engines of probably 0.5cc. The flight proved to be all too 'free', when one of the models disappeared into the wooded gardens nearby.

Peter, my best friend of the time, was thrilled by the idea of finding the model, and talked of nothing else. We spent many days—if not weeks—fruitlessly searching for it, even trespassing into the grounds of a semi-stately home. As hope faded on the search, Pete disclosed that he'd been trying to build a model for a while, and maybe we could finish it off if we both worked on it? The job in question was a Keilkraft Piper Family Cruiser, rubber powered, about 20" span.

[A word about KeilKraft Flying Scales*. Far too many youngsters were tempted by these tiny scale models as their introduction to aeromodelling. In my view they were much too difficult for beginners to build, tricky to fly, and made no provision for trimming. A grossly inadequate loop of rubber was supplied for power with an under-sized propeller of dubious efficiency, and where the C.G. should be was anybody's guess. But they were cheap and fairly realistic-looking, so they sold in zillions. Youngsters are never wise enough to take good advice, even if they're lucky enough to receive it.]



*[Similar kits were sold by other makers, e.g. Veron, with similar characteristics.]

Perhaps two heads are better than one, for somehow we managed to assemble the Piper—with some parts missing, I fear—and we even got it covered with tissue. Here we struck a snag. "Water-shrink the tissue covering" said the instructions. What did that mean? We had no idea. So we took the bus into town, 5 miles away, and into Mr. Hobby's shop to ask for information. Unfortunately the man who served us seemed to be a mute imbecile. He responded by simply plonking a bottle of clear dope down on the counter.

We plastered the clear dope all over the model and overlaid that with yellow dope, but nothing shrank. It was as wrinkled as a discarded sweet wrapper. However, we pressed on.

On the great day we wound up the rubber motor and chucked the model off a bank at the end of the sports field, full of hope and wrinkles. It went straight into a vertical dive, splat! into the ground at the bottom. Some of those missing parts I mentioned earlier were supposed to hold the nose onto the rest of the fuselage; in their absence it fell apart on impact. We hadn't the faintest idea how to repair it, so that was that.

It seemed to be my turn next, and the choice was a D.H. Chipmunk from the same difficult series. After a long gestation of confusion and frustrations almost to the point of tears, the contraption eventually came together. This time most of the parts were on board, though as Eric Morecambe might have said, not necessarily in the right order—or the right place.

The day of the first flight was the moment the addiction bit, and a life's troubles started. Launched from the bank as before, the Chipmunk sailed off and performed a gently descending circle, coming to rest undamaged at the bottom. "It flies!" we yelled, and hugged each other in excitement. Even footballers didn't hug in those days, so you can imagine how thrilled we were.

As for the troubles, well, this modest start led me into 60 years of cut and burnt fingers, balsa dust in my hair and nose, paint and oil stains, earache from the fair sex over the smells of dope, ether, solvents, polyester resin and the rest. Plus a certain amount of going out in the snow and on days when crows are walking, jolts from electric fences, and being chased by stampeding cattle. The things we modellers have to put up with—and my wife thinks I'm enjoying myself!

(Reading this is déjà vu for me and very recently I too have been revisiting my past like George the KK Chipmunk was one of my favourites and I built 3. One at age of about 8 or 9 and bored with waiting for dope to dry had a brilliant idea, dry it over the gas cooker. Brilliant worked well once. Next time was an ouch ooh ooh day when the Chipmunk was engulfed with flames, a lesson learnt and red pingies to boot! The only way we could get our models to fly was to launch from a raised terrace in a mate's garden which was about 1.2m high with very long garden falling away. I'm in process and planning constructing some

Smoothie Wakefield model by N Standing from Model Aircraft August 1950

Smoothie may not be as hot as a Benny Goodman record but if you build and trim it correctly you'll have a model that can hold its own with any Wakefield.

You may wonder why the model is called "Smoothie"; this is because it is fitted with two anti-vibration formers which you can see on the plan marked "A" and "B." These stop the motor from hitting the sides of the fuselage. This, together with the "S" type hook makes the transmission from rubber to propeller almost free from vibration.

Using a 16-strand motor combined with a fine pitch propeller the model has a terrific climb followed by a tight circling glide. This is obtained by making the model balance at 75 per cent. of the chord back from the leading edge; although this is only advised for high pylon models, no trouble was encountered in trimming under this set-up. The model was developed from my previous experience on a streamlined Wakefield, where it was found that locking all the components (wing, Tail and fin, etc.) into position was a definite advantage. The model if trimmed could be taken straight from the box and flown in a contest without any previous trimming. This eliminates the risky test flight before a contest.

The idea was to produce a model with these points combined with the usual lightweight principles (polyhedral, thin wing section, S.B. folder, retractable undercarriage, etc.). As you can see, wing, tail and fin all lock in position.

The fuselage has very little drag and the usual large amount of structure needed to bring the fuselage up to formula is put to a more useful purpose. i.e. wing fairing and DT, box. As you will notice, the model is very angular and therefore easy to build and repair in the case of a pile in. I have come to the conclusion that elaborate streamlined fuselages and tapered wings take too much time and trouble to construct and offer very little advantage over the slabside even chord layout, provided everything is locked in position as I have previously mentioned.

Well, there is a brief description of how the model was developed, so, if you like it, grab yourself some wood and here are the building instructions :-

Fuselage

The two sides are laid down in the normal manner, not forgetting that some of the spacers are 1/8in. X 1/16in. The sides are easy to join as the fuselage has a flat undersurface, and two anti-vibration formers make it almost impossible to build the fuselage out of alignment. After the main framework has been finished the two 1/8in. sheet wing mounts are cemented in the appropriate position, the upper part of the fairing is cut from 1/16- in. sheet joined by a soft block carved to shape at the front and sheet at the rear, the top of the fairing is covered with celluloid, as this was the lightest material (1/32 in. sheet would have had to be covered and doped). The fairing is hinged at the back by tape hinges and held down at the front by a press stud sewn into the wood. The D.T. box is held to the fuselage by a rubber band; the box is kept in position on the fuselage by two pieces of 1/8in. square cemented to the underside of the fuselage. The D.T. box comes away completely when the fuse operates. The box is attached to the model by a piece of thread to the tail. The parachute is of rag tissue 10 in. in diameter, with eight shroud lines. A small celluloid spacer is used to stop the lines tangling. A small piece of rubber is used in the parachute line so that parachute and box are pulled clean away.

The undercarriage leg is bent from 16-gauge wire hinged by a small piece of brass tubing bound to the spacer. The leg is retracted by a strip of 1/16 - in. square rubber and is held in the down position by a loop of cotton. The fuse that operates the D.T. burns through the Cotton loop holding the undercarriage down, first, and then goes on to the band holding the D.T. box in position. The length of the fuse will have to be adjusted according to the speed your fuse burns. The leg should retract about five seconds after take-off so when your model is fully wound and the fuse is lit and pulled in position you have got to be quick and get the model away. The length of fuse after burning through the loop to the D.T. can be adjusted according to how long you want it.

The fuselage is covered in lightweight rag tissue, 30 per cent. black leather dye added to the dope and the structure given three coats. Paint the dope on with pieces of cotton wool as this makes the black come out smoother and it is also quicker.

Wing

The trailing edge is pinned in position and propped up at the front. The ribs are then slotted in position except the three at the dihedral brakes. Slot in the 3/16- in. square main spar and then add the leading edge. The wing is then taken from the plan, the spars cut at the dihedral breaks and the three ribs inserted; the dihedral keepers can then be cemented in place. The top of the leading edge is sanded to shape and the 1/32 in. sheet cemented in place. When the sheet is dry the leading edge can be completely sanded to shape. The wing tip blocks can then be added and carved to shape. The wing is covered with Jap tissue and given two coats of dope.

Tailplane

This is very similar to the wing, the trailing edge and spar are pinned in position and the ribs slotted in place. Leading edge and sheeting are same as for the wing. Do not forget to add the end fins ; tips are carved from soft block ; tail is covered with Jap tissue and given one coat of dope.

Fin

Cut the spar from 1/8 in. sheet and pin in position. Place in position the leading and trailing edges, then cement in place the 1/8in. x 1/16 in. cross pieces and the 1/16 in. sheet base. Remove from the plan and fix the cross pieces on the other side. Cover the fin with Jap tissue and give one coat of dope. A small trim tab of tinfoil can be cemented on.

Propeller and Nose Block

Propeller is carved from block as shown on the plan.

Develop the blade carefully giving it about 3/32 in. undercamber.

Give the blade section a good airfoil shape, just round the corners to leave as much blade area as possible. The propeller hub and counter balance shown on the plan should be self-

explanatory. Bend the shaft as

shown on the plan. The motor is wound by the "S" hook which is then hooked on in the centre of the shaft. This type of hook never slips out of position (credit for this idea goes to Jack North, of the Croydon club).

Nose block is three layers of hard 1/8in. sheet, faced at front and rear by 1/32 in. ply. Put in as big a wood screw as possible, a small one will only bend.

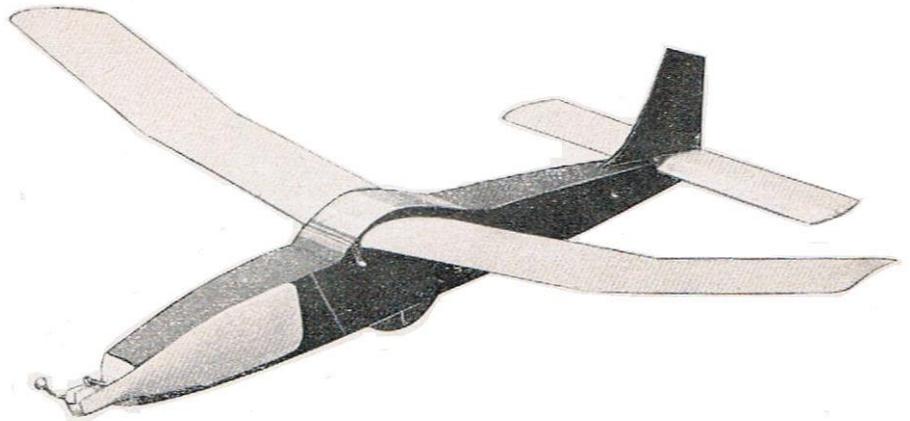
The motor is made up of 16 strands of 1/4 x 1/24 Dunlop 44in. long.

Trimming

The model should be tested for glide. First hand-glide to see that nothing is radically wrong, then wind on 50 turns and make all gliding tests from there. The model should glide in a semi-stalled condition; then the trim tab should be bent so that the model turns out of the stall. Due to the c.g. being so far back a very tight turn will be needed.

Now for the power flying; put about 70 turns on and work-up from there. 1/16 in. down and side thrust was used on the original but this will probably differ on your model. The model is dynamite under full turns so do not overdo any of your adjustments.

On a thousand turns it should go up in an 80 deg. climb, so when you take off make sure everything is O.K., then get Out of the way pronto.



Regards from Australia, Allan Laycock

There are two models that you wanted identification for. The first I thought was a Ken Willard (USA) design and the second is a Dan'l Boom by Keith Laumer also of the USA.

Attached are two piccy's of my Boom with an Enya CX 11. It seems that I like many of your readers build all manner of quirky/different and just downright pretty airplane just because we can and for the fun of it.



From Bill Wells

I like Auctions and I like Model engines so what could be better than an Auction of model engines? Each year at the beginning of November Gildings in Market Harborough have an Auction of Model Engines and each year there seems to be a different theme. One year it was small engines and everyone went OTT paying high prices for, in some cases, quite common engines. Another year the larger engines dominated. This year I think I am on safe ground saying the Auction was dominated by OS engines. While I much enjoyed the pre Auction examination of all those lovely engines my thoughts were slightly tinged by the fact these engines were here mainly because their collectors had died during the intervening year.

There were 527 lots just too many to see just before the Auction but like many others I just couldn't get to the viewing day which was the day before the Auction. So how does the Auction Work? As the items are not new the VAT is only paid on the service for selling the items. So the Auctioneer charges 15% of the Hammer price for his service then adds 20% VAT onto that service charge. Or putting it another way a total of 18% on the Hammer price is added to the purchase, for each £100 you pay another £18. The catalogue is downloadable on the internet a couple of weeks before the sale. At this point I note the engines I am interested in then on the day make a point of viewing them and mark down what I am prepared to pay for them. It is only too easy to get into a bidding war and then find you have paid well over the odds for an engine. My advice is having fixed what an engine is worth 'to you' then stick to it (within a small upper margin). Once the auction of your chosen engine is under way stop bidding if you reach your limit.

Engines are sold singularly in twos or sometime threes so as to make a worth while bid. If you like model engines there must be something in a Gildings Auction that you will bid for. On this occasion a box of covering materials or a large bag of propellers to a five cylinder radial engine. Well yes there are other things in the Auction other than engines in fact any model gear is sold. In this Auction there was 21 lots of engines made by Bill Linfield which included 7 steam engines of various types plus some stationary engines. In fact it was Mr. Linfield's 5 Cylinder Gerald Smith Buzzard that brought the highest hammer bid of £2,300.

To most collectors or those just wanting an engine for a particular type of model there was lots on offer. Needless to say the Oliver engines epitomized in the John Goodall's book 'The Olivers and a Tiger' made good prices £110-£210 on the hammer. There was lots of kit's and a handful of models.

There are bargains at Auctions, sometimes you can get what you want at a reasonable price sometimes you are out bid. Unless you are filthy rich and just don't care be careful of getting into a bidding war and ending up with something costing well above its true value. My purchases were quite modest and the most paid for an engine was £25 on the Hammer for delightful 1960s Webra 2.5 Winner. The previous owner had been a bit unkind with a pair of pliers otherwise everything was well preserved and locked solid with castor oil residue. On unscrewing the large diameter back plate I was surprised by the large crank disc and the very small bore about 5/32" that transfers fuel from the carburettor through the centre of the crankshaft. I bought some near new or new in boxes OS engines at £15- £16 each.

My best buy was £12 (Hammer Price) for an OS 45F, a 35 and a Pet all R/C sold as one lot. I was after an OS Max-S 30 or 35. The 35 was intact fairly clean but had not been run for ages and was locked solid. I cleaned the engine, replaced the glow plug and the bent spray bar. The engine starts easily and runs very well not bad for a 1960s engine! I had a similar success with the OS Pet except after cleaning in cellulose thinners I used an ultrasonic cleaner to finish off the cleaning. In comparison to the Pet the 45F is a brute of an engine but it runs well. So three very good runners for £12 + £2-16.

Whatever you are after in a model engine there is a good chance that Gildings will have it at Their Model Engine Auction.

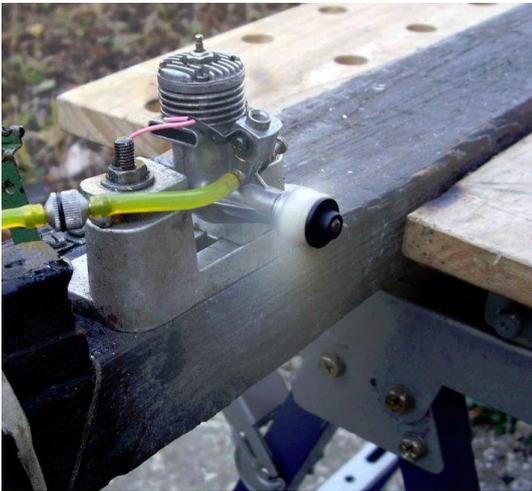




FOX 19



HB 25





Webra 2.5



In case you haven't got the model it is the 049 very slightly modified. Millish Red Fin

The Fairey Swordfish by H. G. Moore Mills 75 powered flying scale model of the "Stringbag" From Model Aircraft March 1954

Start on the fuselage by building up the 1/8in. X 1/8in. hard balsa frames over the plan one on top of the other; remove and bend to top view of plan, and add all cross bracings working from nose to tail.

Lower centre Section

First cement 3/8in. sheet across fuselage with grooves to take 1/8in. diameter dowels, then add the two 1/8 in. sheet ribs; cement to fuselage sides at correct incidence, fit 1/8 in. dowels, carry on building up centre-section as shown on plan, and sheet undersurface; do not sheet the top until you have made up the 16-g. wire struts. Fit and well cement them in place, solder on brass tube to carry upper mainplane, then sheet top of centre-section with 1/16 in. sheet. Make up the pivot points for the undercarriage with 16-g. inside diameter tube soldered to thin tin, drill and bolt in place on fuselage and c/s with 10-B.A. bolts. Cut out formers and cement in place on top of fuselage, make up the 18-g. wire c/s struts, and bind and cement in position shown on the plan. Add all stringers and sheet fuselage where shown on plan with 1/30 sheet, carve the two blocks of balsa to shape at the nose, making the top one detachable. Now make up cowling ring, cut out motor mount from 1/8 in. ply and cement the whole lot in place; carve to shape and sandpaper, solder wire bracings to struts and fair with balsa, add V stress struts from fuselage to c/s, and fair into fuselage with plastic wood.

Undercarriage

Make from 16-g. steel wire bent to shape as shown on plan. Well solder and bind with wire; fit axle wire in the V and push into pivots; fair with balsa and make axle fairing with plastic wood.

Louer Mainplanes

Pin down all 1/16in. square rib bases over plan then cement in place the mainspar of 1/4 X 1/8in. spruce, T.E. and L.E. Add all 1/16 in. square and 1/16in. x 1/4 in. strips by cementing them from L.E. to T.E. Lift off plan, add tips and 1/16 in. ply root ribs (see side view of drawing for outline). If preferred, the ribs can be cut from 1/32 sheet.

Upper Mainplane

The ribs can be made as for the lower wing, but the hardest part is the centre section, as the whole wing is made in one piece and must be strong enough to carry the lower wings and support model in flight so it is the spars that are the main worry. They can be made in two ways: the one I chose is to cut them from 1/4 in. birch ply, the other is to make them from 1/8 in. X 1/8 in. spruce strips, steamed to shape and cemented together so that you have a 1/8in. X 3/8in. spar; then thin down c/s as shown in front view of plan. Make one side at a time and sheet centre section last.

Interplane Struts

Make from 1/4in. X 1/16 in. and 1/16 in. X 1/16 in. strip leaving a hole down the centre for elastic to pass through; assemble wings on fuselage at correct dihedral and cut struts to length.

Covering and Finishing

Use heavyweight rag tissue for fuselage and tail assembly; wings are covered with medium rag tissues, u/c struts and cowling can either be covered with tissue or treated with sanding sealer. Give the whole model one coat of strong shrinking dope (217 or 0-My Glider dope) and treat inside of cowls with fuelproofener.

In 1939 Swordfish were doped silver all over, with an aircraft carrier identification band aft or forward of roundel on fuselage. This band was either white on blue, or black, green or red on yellow.

During the war they were shadow shaded, dark sea grey and dark slate grey on upper-surfaces, undersurfaces either black, duck-egg blue or white, and on all types the underside of the top centre section was matt-black. Exhaust ring pipe and oil cooler were matt-black.

Assembly

Fit u/c into pivot, and attach with strong elastic band to front legs through fuselage. Fit upper mainplane to struts with elastic bands, and lower mainplanes on to 1/8in. dowels held in place by elastic over pins in the root ribs, and passing under c/s to opposite wing. Push 1/16. diameter hat elastic through hole in lower wing up through strut anti upper mainplane over wing and down through rear strut; tie elastic under lower wing. Add flying and landing wires of 1/32 in. diameter elastic ; attach tail assembly with a strong band around fuselage and over tailplane, fit tailplane struts as shown. Fit motor on mounting with right- hand sidethrust

and 1/16 in. downthrust, and attach cowling ring-it can be fitted any way you like as it has got to be removable for flying, the only other part removable is the small part of the fuselage decking behind cowling.

Flying

Balance model at 50 per cent of upper mainplane chord, choose a big field with long grass and still air, glide test to see that everything is O.K., then start powered tests.

If you have built the model to the plan and are using the three-bladed dural prop, you should have the same luck as I had, and that is that it flew straight off the drawing board and out of sight, so a word of warning-trim it for large left hand turns.

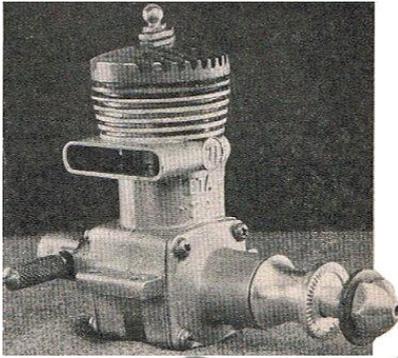


From John Mellor

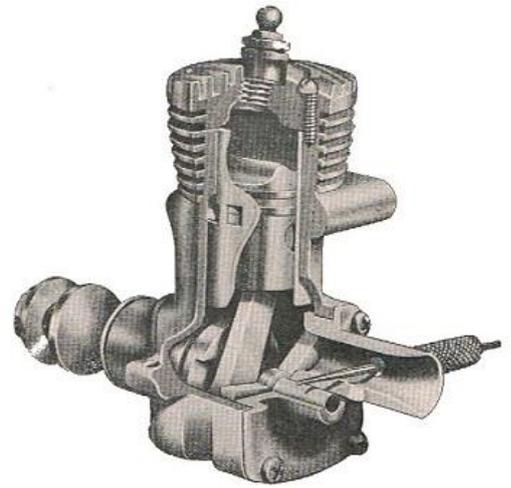
I built the Skystreak 52 back around 2007 and have recently rescued it from my loft where it has sat for the last 5 years. It was always a great flyer with a good "sit" in the air. The motor is a Twister 25 brushless and it used to run on NiMH cells (7 I think). I have now set it up with 2200 3S Lipo which was pulling 45 amps flat out on a 10 x 7" folding prop when David Lovegrove and I tested it. As I was using a 40 amp BEC I changed that to a 55amp one and the prop to 10 x 4" folder. The model is essentially a twice size version of the old Keil Kraft Skystreak 27" control line model of around 1947 and the plan was drawn up by Les Nicholson for control line. For its time it was a great looking model and still is. It was published in one of the major mags around 2006 but I can't remember which as I have lent it to someone!! I built it, as far as I can remember, almost identical to the C/L version - just reducing the size of the barn door elevator and adding strip ailerons. Controls are Aileron / Elevator and motor (no rudder). I thought long and hard about what to do for undercart - dolly or trike or none - and opted for none with a "radiator" on the bottom to hold onto for launch. I used black and yellow chequerboard underneath for good visibility. It was always a great flyer but needed landing carefully or the ply blind nut holder would break out of the fuzelage side. Now is several ounces lighter because of the switch to Lipo it is easier to land slowly and gently!! Anyway when we tried it again it flew just like 5 years ago but better with continuous loops and rolls a sinch. Flight time is up to 10 minutes as it is on half throttle much of the time. I hope to have plenty of flights with it around the vintage circuit next summer. The static picture was taken back in 2007 so I look less worn but the model (on the right) is no different. The other model was a scale up of John Ralph's old galloping ghost "Wagtail" which was also a great flyer until its demise after some 100 flights.



The ETA 29 Series III from Model Aircraft May 1954



It is rather more than four years since the original Eta 29 was featured in this series. At that time the Eta was the most powerful 5 c.c. motor made in Britain. This distinction it still enjoys : in fact, its position has been consolidated by the greater performance of the Series II and III models and by the fact that



most of the larger capacity, (e.g. 10 c.c.) high performance engines formerly available on the British market, have now been withdrawn. As a result, the Eta 29 is the most powerful and highest revving model aircraft engine to be found among model dealers' stocks. Readers of our earlier report on the Series I may recall that this engine earned high praise at a time when many production engines were still "rough," both in finish and performance. The Series I Eta was noted, not only for its high power output but also for smoothness of running, easy handling and good finish coupled with pleasing appearance. The Series II model which followed was a development of the Series I, having slightly different port timing and a 25 per cent. greater carburettor choke area. Structurally, this unit can be identified by the use of a carburettor intake integrally cast with the backplate. The Series II designation was comparatively short-lived, however. A new crankcase/ cylinder-block casting, having a larger exhaust duct and transfer passage was adopted shortly afterwards, and the 29 became the Series III. The Eta is, of course, a glow-plug ignition motor of the "racing" type and is designed for operation exclusively at speeds in excess of 10,000 r.p.m. It has proved particularly successful (in all its versions) in class B team racing and its high performance and quick re-starting characteristics have established it as the No.1 British class B power unit.

Specification

Type: Single-cylinder, air-cooled, two-stroke cycle glowplug ignition. Induction by rear mounted rotary-disc valve. 180 deg. exhaust parting. Baffle type piston. Inclined ignition plug.

Swept volume : 4.87 c.c. (0.297 cu. in.).

Bore : 0.750 in. Stroke : 0.672 in.

Compression Ratio : 8.5 : 1

Stroke/Bore Ratio : 0.896 : 1.

Weight : 7 1/4 oz.

General Structural Data : Pressure die-cast one-piece crankcase and cylinder-barrel with shrunk-in meehanite cylinder liner, ground and honed. Heat-treated alloy steel crankshaft, counterbalanced and ground on all working diameters. Taper collet drive to airscrew. One 3/8 in. and 1/4 in. dia. Ball journal main bearings enclosed in pressure diecast housing. Integral diecast rear cover and carburettor intake carrying bushed valve rotor running on alloy steel pivot pin. Lightweight aluminium piston fitted with two low-pressure piston-rings. Fully-floating gudgeon pin fitted with end-pads. Bronze big-end and small-end bearings. Pressure diecast finned cylinder-head secured to cylinder with six Phillips screws. Lapped head joint. Open type carburettor jet. Beam type mounting lugs.

Test Engine Data Running time prior to test : Approx. 2 hours.

Ignition equipment used : K.L.G. Miniglow long-reach glowplug. 1 3/4 volts to start.

Fuel Used : Basic mixture : 70 per cent. blending methanol and 30 per cent. Castrol "M." 15 per cent.

B.D.H. nitromethane added for dynamometer tests.

Performance

Our earlier remarks, made on the occasion of the Eta 29 Series I test, can also be applied to the Series III. Despite its higher performance, the Series III remains easy to start from cold and can be instantly re-started when hot after refuelling-one of the reasons for its popularity in T R work. Naturally, a little time will be required, with a brand new engine, for the rings to become bedded in and produce the compression-seal conducive to such quick and positive starting, but our findings here were that the Eta had a better ring seal

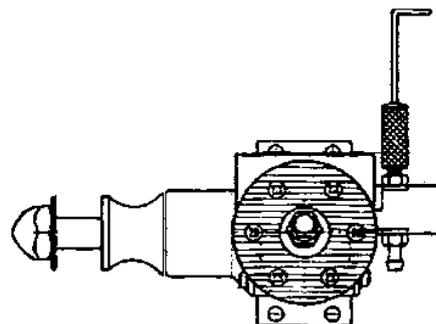
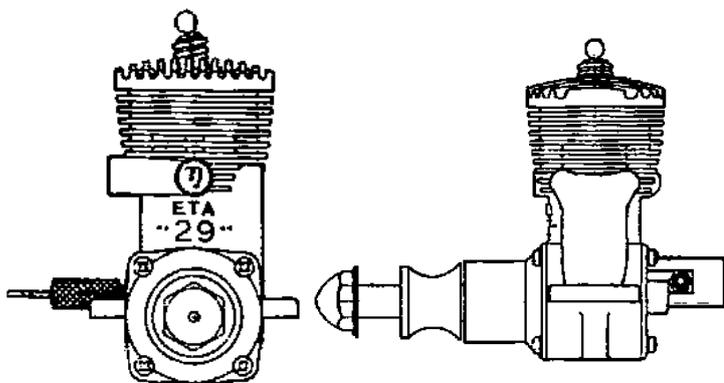
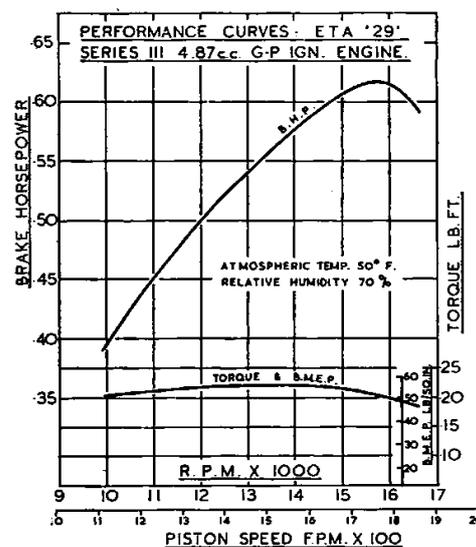
when new than most transatlantic products of this type that we have tested-some of which have required very liberal priming with castor-oil to aid starting during the first hour or so of running.

Messrs. Eta Instruments Ltd. of Watford the makers of the 29, now recommend that running-in be carried out in short runs at speeds in the region of 14,000 - 16,000 r.p.m. This may sound excessively high as against earlier notions of what constituted the correct running-in procedure, but practically all high-speed glowplug engines are the better for being lightly loaded during this critical period, since glowplug ignition does not lend itself to ignition timing adjustment to suit lower speeds. Provided that only short high-speed bursts are permitted and that the recommended basic fuel mixture of 70 per cent. methanol and 30 per cent. castor-oil is used, no damage from overheating is likely to occur. Compared with the earlier model, the Series III shows an increase in output amounting to approximately 15 per cent., the peak r.p.m. being raised by 1,000-1,500, while a slightly better b.m.e.p. is also apparent.

The Eta 29's are not greatly affected by the use of nitroparaffin content fuels over plain methanol/castor blends but, as in most of our recent tests of high-performance glowplug engines, the former type fuels have been used, our performance checks were made with 15 per cent. nitromethane added. This, added to the basic mixture, has the effect of lowering the lubricant content to just over 26 per cent.-which, of course, is quite adequate with a properly run-in unit. As will be seen from the graph, a b.h.p. of 0.62 at approximately 15,700 r.p.m. was realised. This is the highest figure for a 5 c.c. engine yet recorded in this series.

Power/Weight Ratio (as tested) 1.37 b.h.p./lb.

Specific Output (as tested) 127 b.h.p./litre.





Eta .29 Mk III



BC

From Phil G

Doug, who you may know as DC_Engines or No1DieselMan, has set up a new forum specifically for us retro radio users.

It works very well but it does need input. Its easy to register, and equally easy to use - it would be great if everyone would pop in & say hello, tell us how they are getting on with their S/C, reeds or any other form of 'retro' flying... photos have to be hosted off-site at the moment but its easy to put them on PhotoBucket or ImageShack then use the links those sites provide to your photos.

<http://buttonmen.forumup.co.uk/index.php?mforum=buttonmen>

Photos taken by Martin Radcliffe at Epsom Downs on 5 December 2013



Bob Baker





From Rick Farrer

Back a few years one of our club members passed away and amongst his extensive collection of battered models there was this fuselage. I was immediately taken by its elegant lines and purchased it. I had no idea what it was but cleaned and re-covered it, fitting it up with a PAW 80 and a pair of aileron wings that looked about the right size.

Once we got the engine going we chucked it off. With full down trim and full down elevator it continued to climb! No throttle control and a full tank provided an exciting few minutes of flying. On reflection I realised that the rigging angles were all wrong and once the longitudinal dihedral was optimised it flew like a dream.

Me being me, I eventually electrified it and it proved to be a great model to hide in the back of the car for illicit flying sessions. When Sticks and Tissue number 57 came out I realised that my little aeroplane was a Half Tone by Dave Platt. What a little smasher!

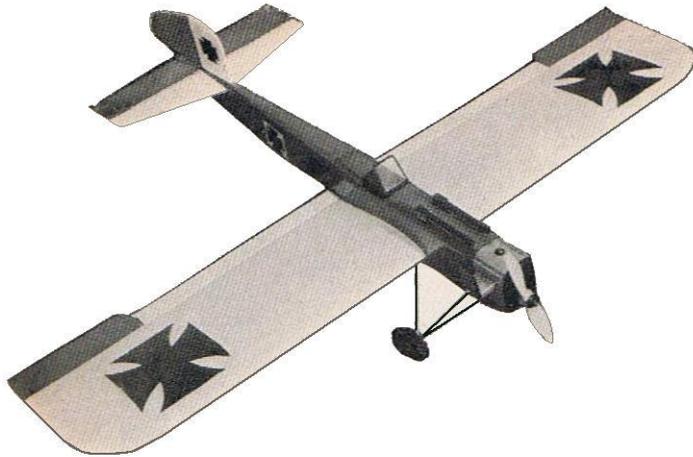






Plover by John Stroud an out of rut sports control line stunter for 2.5 – 3.5 cc motors from Aero Modeller October 1976. (Cover included after article)

Many control line stunt men spend hours and hours looking for full size aircraft designs to crib, and to make a good stunter that looks different. Development along logical paths seems to lead to models that look alike and I have never found designs that look like a jet fighter and fly like a Tiger Moth very attractive. After building a couple of crop-duster like models I still yearned for something more unusual. During the First



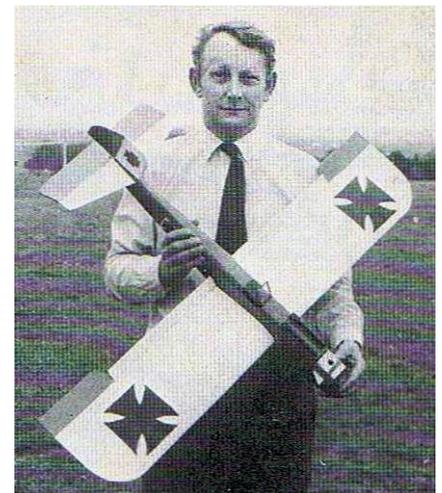
World War and just after, a few full size aircraft were built which looked like Plover- the Junkers DIIIV is a good example and with just a little licence, I think I have produced a model with the 'atmosphere' of that era, and an excellent performance. The basic proportions and construction follow accepted practice - only the fixed ailerons and undercarriage construction are unusual. I have tested the undercarriage fully (once during test flights for the Editor!) and consider it well worth the time and effort involved. The fixed ailerons worried me before I flew the model as I was sure that they would incur an acrobatic penalty. My friends who profess to be aerodynamics experts

agreed, but would not put a figure to the loss of performance. To my delight there is no loss in performance, and there may even be an increase. My friends then set about explaining why it flies well . . . the desirable increase in thickness/chord ratio is achieved by the fixed ailerons. Certainly the model is light (28ozs) and the OS 15 produces ample power. Whatever the reasons, it flew straight off the drawing board and needed no trimming. My one regret is that I did not wait for the local shop to get some transparent plastic covering - the solid colour has hidden the structure and lost some of the 'atmosphere'. My original drawings were for a .35cu.in. stunter and anyone preferring this size model only has to add 25% to all the dimensions. The construction is straightforward and will present no problems to anyone who has made a few models beforehand. Select medium to light balsa unless otherwise stated on the plan - a good stunter must be light, be accurately built and have a free moving control system. Time spent on achieving these objectives on a successful design is never wasted. Strength comes from a simple but sensible structure with good joints and glue - I prefer PVA glues and find the longer setting times acceptable if one works on several components at a time.

Construction -

For some reason I prefer building wings, and thus always start with this component. Cut two rib templates from scrap 1/16in. or 1/8in. plywood, as shown on the plan. Cut 18 x 1/16in. and 2 x 1/8in. rectangles of quarter grain balsa and sandwich them between the templates, then carve and sand the resulting block until a complete set of ribs is formed. Cut spar notches, and file to an exact fit on the spar, then carefully drill the block of ribs to make the leadout holes. Now select two 1/8in. ribs and the two 1/16in. ribs to make two ribs R2 & R3 respectively. Mark a line on these ribs 1/16in. from the edge contour by the 'thumb gauge' method. Trim away the surplus wood to produce ribs 1/16 in undersize (to be covered with 1/16in. sheet centre

section covering later). Carefully cut out the bellcrank box components from 1/16in. ply and assemble as shown in the sketch. Make bellcrank from paxolin or dural and mount on a suitable piece of brass tube which provides a good bearing on the pivot bolt. Fit bellcrank between top and bottom of the box and ensure that it is free but not sloppy. Add R3 to each side of the bellcrank box using PVA glue, and check for squareness all round - I leave mine to set lightly held in a vice. Cut out leading edge and trailing edges and select mainspars. Note that wing is built to 36in, wing span but that the left hand

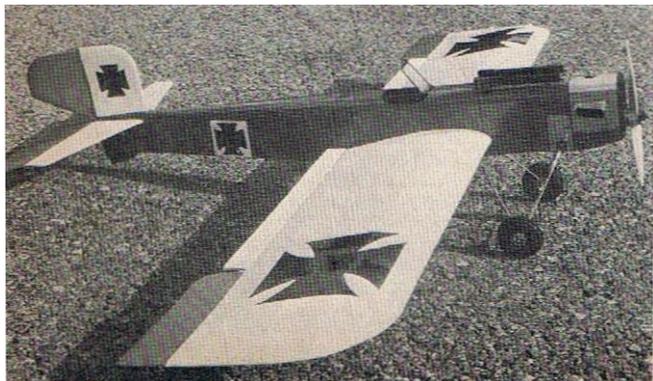


wing is 1in, longer than the right hand (tips added later, bring the span up to 43in.). Pin down bottom trailing edge and glue all ribs, including bellcrank box, in place using bottom spar as shown to support ribs until dry. Add top spar and LE and top trailing edge. Finally add 1/8in, square rear cap. Use PVA glue throughout as this allows time to check everything is square before leaving the structure to dry overnight. When dry remove from plan, add bottom spar, 1/8in, wing tips and false 'aileron'. Make wing tip gussets from 1/4in. and 1/8in, balsa as shown and add 1/2in. x 3/16in. strips top and bottom at the L.E of tip. Fair all these gussets to match L.E mainspars etc. Connect leadout wires (from heavy Laystrate) using double loops for safety and sheet the wing centre section. Epoxy leadout guide tubes to inboard wing tips. (check that leadouts do not foul on any of the ribs).

Bend flap horn/joiner from 16 swg piano wire as shown and add the tinplate fittings. Drill flaps and insert flap joiner with a smear of epoxy. Add pushrod to bellcrank and check for free and 'equal' movement. Sand entire wing smooth with fine garnet paper on a large sanding block. (I haven't forgotten the tip weight - that comes later).

Fuselage — Cut 3/8in.sq. engine bearers as shown with a gradual taper from F1 to F2. Shape bearers to fit engine with 3° right thrust, drill bearers and bolt on engine. Use tinplate straps beneath bearers and solder bolt heads to these straps to avoid bolts from turning on finished model. Construct tank as shown from tinplate and soft copper tube, or buy an equivalent suitable commercial tank - tank should be firmly glued between F1 and F2 sitting on top of the engine bearers. Cut out the fuselage sides and ply doublers and glue together to make a 'handed' pair. leave to dry under an even weight. Build up rear fuselage sides over plan from 1/4in.sq. strip. When front and rear fuselage sides are dry, cut splice joints in 1/4in.sq. longerons to fit onto front fuselage side. This should be done with care to ensure that the rear fuselage taper is correct. When satisfied, glue front and back halves together, remembering again to make a 'handed' pair. Now glue fuselage sides to edges of engine bearer assembly adding F1, F2, F3 and F4. Pin down to the building board and double check that everything is square before leaving to dry, Remove bottom part of fuselage and check that wing fits square in the fuselage. Trim if necessary to achieve a good fit, wings should be at 0° incidence. It is useful to mark the wing with the fuselage position (taken from the plan) to aid in alignment. Glue wing to fuselage and when dry, glue together rear fuselage adding 1/4 sq. cross braces.

Cut out tail skid and fit to rear fuselage - brace with scrap 1/8in, sheet and epoxy wire reinforcement in place. Cut out tailplane parts from light grade 1/8in, sheet, hinge with sewn thread or linen tape as preferred and fit elevator horn. Glue tailplane in place and add elevator pushrod. Neutralise elevators, flaps and



bellcrank and solder tinplate fittings to the pushrods adjacent to the flap horn - it is easy to resolder these fittings to ensure perfect line up. Flap angular movement should be the same, or slightly less, than that of the elevator – select the hole in the elevator horn to give the required movement.

Now add the remaining formers, Sheet or plank top of fuselage back to F3 and add stringers from F3a to F7. Cut out fin and rudder (noting grain direction) and fit in place. Fill in each side of fin with scrap block and ensure adequate rudder offset.

Cockpit area may be painted black later on, or if preferred, may be cut out and a floor added to accommodate a pilot. Bind and epoxy u/c pivot tube to 1/8in. ply cross brace. Fit inside fuselage flush against bottom of wing as shown. Insert large bore rubber band tube in fuselage behind F1 and under engine bearers- I used a disposable syringe body but a rolled paper tube will be fine. Replace lower fuselage sides below wing and cover bottom of fuselage with 1/16in. balsa (note — grain goes crossways).

Fill in below engine bearers with scrap block. Wrap tinplate protection plate around underside of nose and epoxy into place; the holes for the rubber bands can be pierced in later resulting in neat rounded holes. Prepare the wire u/c parts from 12 swg piano wire. One axle, one front spreader bar, one rear spreader bar, and two 'handed' V-shaped supports. Assemble them on the model and bind all joints with fusewire. Do not struggle with inaccurate bits - throw them away and make a new one - it's less effort in the long run.

When the u/c is satisfactory and pivots freely, tack solder each joint, checking for correct movement at each step - the u/c should pivot freely without any sloppiness. When you are completely satisfied, finish the solder joints and fit the wheels (retain with a washer soldered on to the axle). Smooth the entire structure with fine garnet paper.

Make a cowling to suit your engine, either in balsa or as shown. This was the first tinplate one I had ever made and proved to be much easier than I anticipated. This is the point where I normally add the tip weight. The amount of the weight should be sufficient to just tip the model when balanced on the engine crankshaft and tail skid.

Covering

As stated previously, I think the most suitable covering is the transparent type of heat-shrink plastic. However, lightweight tissue would also be suitable for the gentle flyer, provided he does not put on too much coloured dope thereby increasing the weight considerably. I find that tissue can be lighter, but the final weight of the plastic is more predictable as it requires neither dope nor fuel proofer. Finally, add the dummy guns and windscreen and it is ready to fly.

Flying

Always test fly on a calm day - not because Plover is a calm weather flyer, but because one needs to identify model characteristics free from wind effect. First flights should be made on 50 feet of lightweight stranded lines, but I have gone onto 55ft. ones with no problem, if in doubt about the suitable prop pitch, go for the finer one, as light models will fly quite fast. I use an 8 x



4m, on the OS15. Carry out a pull test on the lines and controls and check that you have two good elastic bands in the suspension system. Set the motor slightly rich and off you go.

If you have built it right and have a good motor, she is a charming performer. N.B. No silencer is shown on the photographs and although the tinplate cowl has a good quietening effect, I suggest that one is fitted for the two basic following reasons:

(a) The increased back-pressure exerted by fitting a silencer produces a flattening' effect on the needle valve sensitivity. To achieve good stunt performance the motor needs to four-stroke in level flight and change to a two-stroke upon sudden change of altitude. The needle settings for this effect are always critical and any reduction in this sensitivity can only be welcomed.

(b) Noise Annoys!! With the advent of current legislation, all rightminded aeromodellers should consider others. Fly quietly - it might help save a flying field.

Aero Modeller

OCTOBER 1976

30p

U.S.A. & Canada \$1.25

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HOBBY MAGAZINE



Aero Modeller front cover October 1976, Derek Collin with a couple of his models at Old Warden

From Geoff Northmore in New Zealand

Having seen photos of Ronald's Ludd Bug 7 in the last issue I have a few photos to show Ludd Bug is still alive in New Zealand and some earlier U.K. versions.

They are all of the same basic design, but using electric makes for a tidier, cleaner, 4 channel model that is a pussycat compared to my original unpublished versions – they were a real challenge until my learning curve improved. Geoff Northmore.



Ludd Bug 7 electric



LB 7 dead in boot!



LB 8 Electric



LB9E



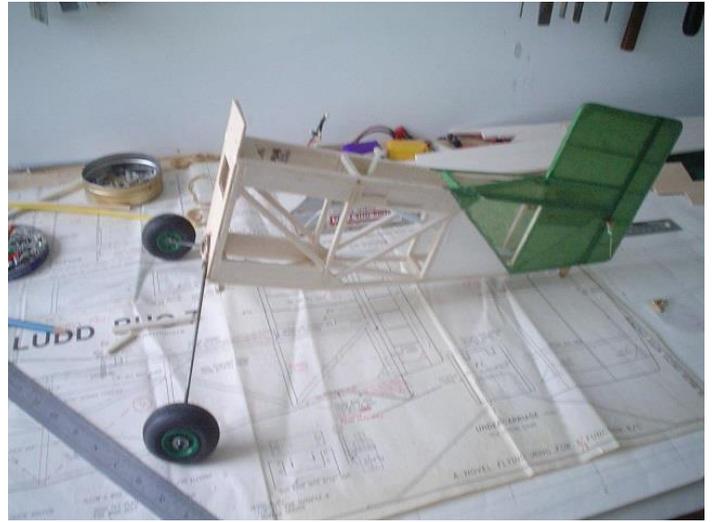
LB9E



LB9E



LBXE



Li po monitors etc

From John Taylor

This is my new 36" Hi start glider. It is scaled down from the Aiglet a high performance A/1 class glider of 45 1/2" span. Published in Aeromodeller in Dec 1956. It was designed by Martin Bridge who was, I guess about eighteen at the time. We were both members of the Watford Wayfarers at the time. My model has been hand launched only so far and trimmed for a long straight glide. All up weight is 73 grams. With no auto rudder I am hoping for a straight launch and a wandering glide pattern.





Also from John some photos below taken last Winter of his Farman converted to electric RC





From George Stringwell

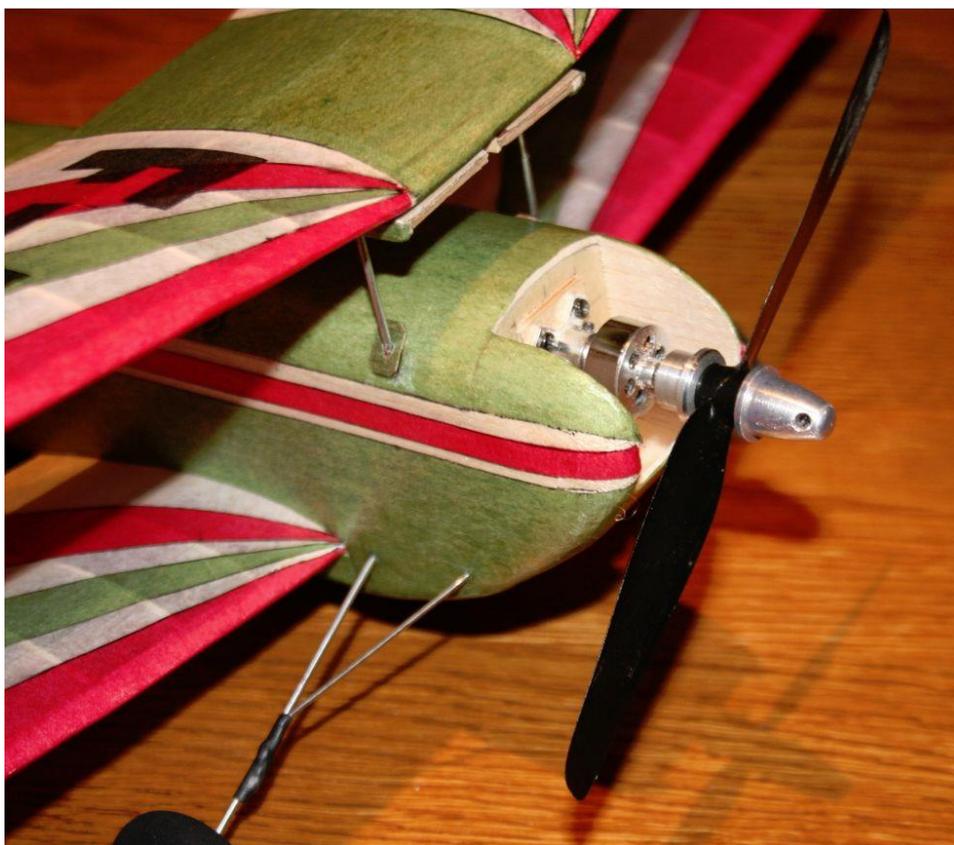
When I finished the "La Paloma" at the end of November, I decided that there was just time to build an electric R/C version of Vic Smeed's little "Flipper" biplane before the RC Groups "Biplane Plus" build off ended on 31/12/2013. Well, there was, but only just! I finished it on the 28th December. It isn't likely to be flown just yet as our weather has settled into a grim phase of wind and rain after the beautiful flying weather of the first part of December, and I also have a chest infection which precludes any flying field activity.

It is a very small model at 18 inches span and not particularly light at 160 grams (5.75 ounces) but at least getting the battery and ESC right forward has paid off as the CG is right. Funnily enough, the RCMW Sport Channel columnist Gray is now in possession of Vic Smeed's original Flipper, designed for rudder only escapement radio, which he is planning to refurbish, and he says it is surprisingly heavy.

My version is rudder/elevator/throttle, equipment is a BRC1811 30-50 watt outrunner turning a GWS 6" x 3" prop with a BRC 6 amp ESC and a 320 2S lipo. Radio is an Orange 6 channel 2.4 gig Rx with two 3.6 gram micro servos.

As well as a few photos of my model I have enclosed a photo which Gray took of the tattered Smeed original for comparison.

Best wishes for the new year to you, and also to all S&T readers.







From Brian Austin

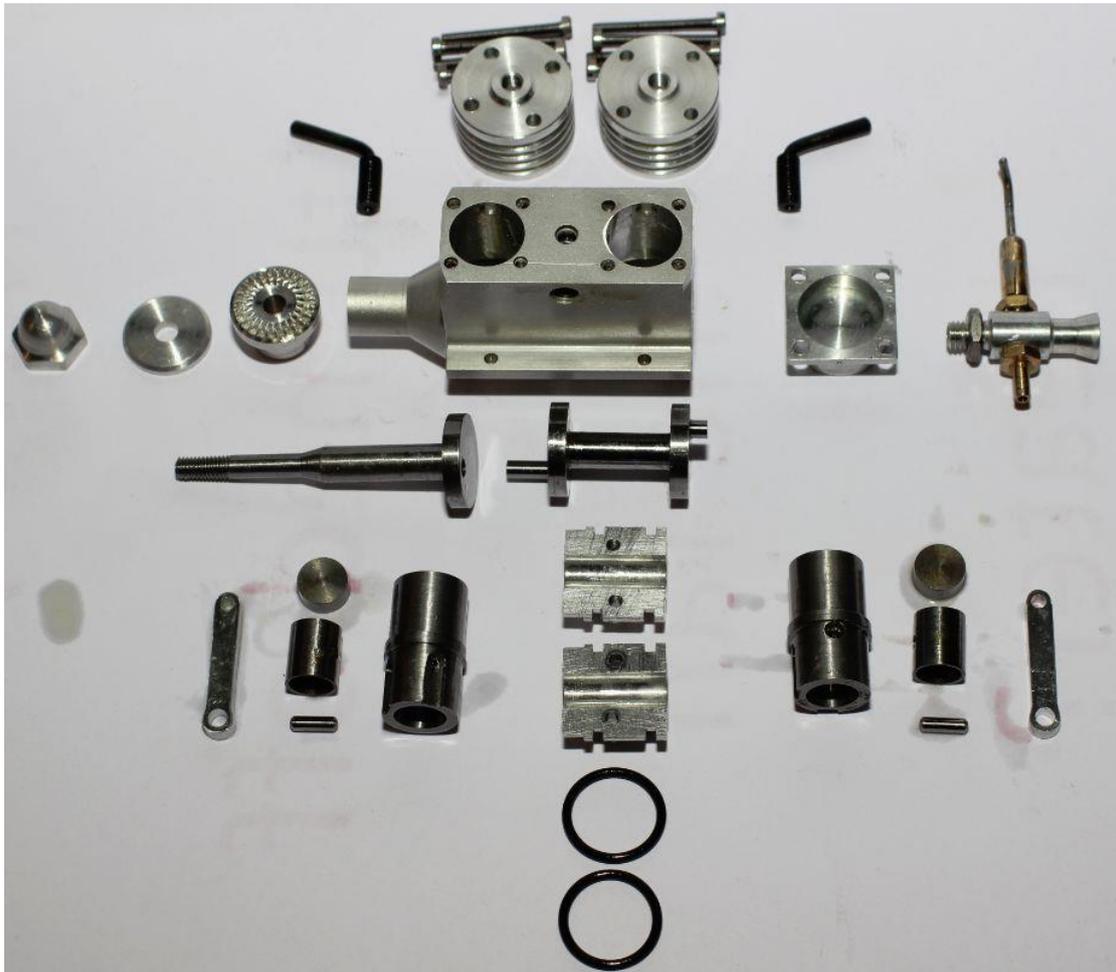
I have a biplane version of the Skydancer waiting to be test flown, picture attached.



From John Hoyle

Firstly, thank you for so kindly forwarding my A/c recognition requests around the world! What a fabulous setup the internet is when one needs information. I am pleased to have at least one properly identified and will send an email of thanks to the sender. The seaplane model I photographed at MW is very similar to the Ken Willard design and may just have been modified from that plan.

As you ask for contributions to S&T perhaps you would be interested in my latest creation, a 2 x 0.5cc inline version of Mark Lubbock's Midge. You may remember that I built both the .5 and .8 singles some while ago which have been splendid, so easy starting and controllable. I have wanted to build a twin ever since seeing one of John Oliver's Tiger Major twins and that was 20 years ago! This little engine ran for the first time 2 days ago so is in it's very early days yet, too early to be familiar enough with it to say if it has the same gentle characteristics as the singles. Incidentally, do you have any contact info for Mark Lubbock? I have never met him but would rather like to contact him.





A SPITFIRE FOR CHRISTMAS By Ross King.

If you're anything like me; then you still recall the thrill of getting your first model diesel engine. It was Christmas morning and my family took it in turn to open their gifts. Now it was my turn and I unwrapped a pale blue box with something heavy inside, this was no toy! I looked at my younger brother Phil who nodded his understanding; yes this was indeed a DC Quickstart Spitfire in all its anodised glory!

The year must have been around 1973, and watched by my smiling parents and envious sibling I carefully removed the cardboard lid and unwrapped the fine clear plastic film that surrounded it.

My senses drank in that first heady waft of the engineering oil it was packed with, what was that stuff they used? Whatever it was, pure model engine magic was the result!

As my Brother and I moved the conical piston up and down, we felt like a small living thing had been placed in our care. How we cradled the smooth blue cooling fins while attempting to fit the silver needle valve.

There was a compression screw as well all glossy black.

Joy of joys my Dad also thought to get a Kiel Kraft Phantom Mite and DC test stand. Radio control supplies in Leicester had done their job well. It took Dad half Saturday morning to get it going, but after that it was easy. Mum didn't appreciate the diesel fumes seeping into the house from the garage though.

The Spitfire was originally designed by Allan Allbon like many of DC's engines and it was good for its day but fragile, sometimes I think that if I knew then, what I know now, I would have asked for a PAW 1.5 and probably still be using it today. But hey! Do you remember the PAW adverts of the seventies? A tiny black and white picture and blunt northern sales patter, Like many lads of my age I fell victim to the thousands Hefin Davis spent on full page Davies Charlton ads in the Aeromodeller.

We both tried to build the phantom mite but sadly the bits languished unfinished in a trunk for years. I couldn't carve the solid balsa wings with my old penknife and Stanley Knives were a No No at the time, but soon the free plan from Aeromodeller came to the rescue in the shape of a mini Goodyear profile racer the Shoestring.

Simple to build and decorated with blue biro and clear full strength dope it was launched on kite string lines with a fine throw by my pitman brother and to both our delight sailed around the circle like it was flying on rails. This was it we were Real Aero modellers. The half-acre field out the back (complete with Donkey Lucy Locket wandering through the circle when flying), was the Scene of many a triumph and disaster after

that. Ah memories! The first wing over, the first loop (Brother Phil got that using a cox Tee Dee 049 on a lynx all sheet trainer.).

That spring my brother also received an engine his was a DC Super Merlin, it was ok, being Red with a spinner and all, but I was able to maintain my elder brother superiority when I pointed out his was .75 cc and mine was a whole 1 cc nuff said!!

Sadly the fragility of the crankcase when over compressed meant my lovely Spitfire didn't last longer than about two seasons but by then we had a DC sabre and the joys of Stunt in a Kiel Kraft Gazelle.

Over the years I owned many engines but they never had the wow factor of my first diesel and let's face it what a great name! Didn't every boy want a Spitfire for Christmas?



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DAVIES-CHARLTON LTD. HILLS MEADOW DOUGLAS, Isle of Man

From Stephen Winkworth

Dear James,

I see that a 'rival' publication (Aeromodeller) has some pictures of the Peter Burford 0.3cc diesel. Having been talked into buying one of these little gems (admittedly at a time when the Australian exchange rate was rather more favourable), I have never regretted the purchase. The pain in the wallet has become a distant memory.

Mine has seen use as the tractor engine in my 'Guerdon' flying wing (it uses an ancient Pfeffers 0.6cc BB R/C as the pusher), and in various other small models, the latest being the three-finned 'Triplebee', which I

have recently refitted with a thinner wing for better penetration. The Guerdon will sustain level flight on the PB alone – which is amazing since it has a span of 1m60 and weighs 800gms. The only thing I have against the PB is that it develops its remarkable power at fairly high revs (making a high pitched and full throated noise). The motor comes with Peter Burford’s own 6x3 and 6x4 props. I haven’t tried anything bigger to slow it down to a more civilized sounding pitch: obviously that would mean sacrificing some power. It is a reliable starter, though not as forgiving as a ‘Mills’, and needs a fast flick or it can bite your finger. As Mike Crisp has recently repaired the Pfeffers, I have just taken the PB out of the Triplebee and put it back in the Guerdon. A relatively quick job as it’s radial mounted with only two bolts.



The mylar and Jap tissue covering I have been using – since reading the David Lovegrove article in S&T – is very pretty. Yellow is perhaps not the easiest colour, but I love the slightly mottled, translucent effect on the Triplebee wing.



The same material (in red) is on my 'Pushycat', which is flying superbly on calm winter days. The climb (using another Pfeffers) is extraordinary, and I only half fill the tank, for a 2-3 minute run, or it will risk climbing above the limit of visibility. The 'Valvespout' oiler I use for the fuel – bought back in the 1950's – lasts for weeks! The picture of 'Triplebee' was taken two days ago, just after some heavy rain. Our local flying site above Chateauneuf de Grasse is looking gorgeous in the clear winter air. Must go now: I have been taking a long time over my Raines Park 'Sunduster' an OFW Fisher design that should provide the ultimate in nostalgia. There are several photos of the original in his 'Collectors' Guide to Model Engines'. I am planning to power mine with a 1950's Enya 19. Best regards – Stephen



David Kinsella's Column

The ED Story - IV

Concentrating on their work in Kingston-upon-Thames, sales going well but money still tight, it's reasonable to assume that Jack Ballard and his boys paid little attention to the goings on in Parliament. Yet a storm cloud was building in the shape of a beefy tax on model aircraft parts and accessories including power units of all kinds (Group 20 of the Purchase Tax Schedules). At a stroke the counter price of an ED engine jumped by 33.3 per cent! To fight their case Eddie Keil, Henry J Nicholls, Jack Ballard and Arnold L Hardinge (Mills Bros) formed a committee (they were leading members of the Model Aircraft Traders Association, sometimes given as the MTA). As kits and bits were exempt, some thought that a degree of common sense would prevail. Important though it was to modellers, ED and Mills was hardly the British car industry! Acting on legal advice a test case emerged and dragged on for two years (we know the feeling) and.....the committee lost! Worse, all tax due from 1 January 1949 had to be paid. One result was that Mercury- Models was wound up in 1953, some assets and the name going to H J Nicholls Wholesale Ltd. ED managed to stump up the cash and carry on.

Avast There

Once with navies of world reach it's not surprising that characters such as Horatio Hornblower and Jack Aubrey have appeared in several books and graced the silver screen. With a small material interest in Admiral Graf See chance delivered a copy of the River Plate action written by Dudley Pope. Royal Navy himself, Pope wrote forty books at least and gave us Boy's Own chaps such as Ned Yorke, another Yorke 300 years later and Nicholas Ramage in the days of Nelson. Well into The Ramage Touch or Ramage at

Trafalgar and you're smelling the gunpowder and dodging the shards of oak. Upholstered by strong book sales, Dudley Bernard Egerton Pope sailed the Caribbean in Ramage, his 37 ton ketch. The perfect escape...

Strong Source

Scale buffs in need of facts ignore the great Osprey series, at their peril. Somewhat like those excellent Profiles of the 1960s, Osprey scores heavily with 3-view colour and many photographs of the machines and the men who flew them. Size varies but for £15 you'll get 130 pages of solid stuff hard to find elsewhere Try Waterstones.



Our Picture Show

Long a strong S&T feature, super pictures of all the motors we love – and need - are a monthly treat. Personally I like the big hairy 60s from the USA, many more than the Doolings and McCoys we first think of. Fox fashioned mighty crackers such as the Long-shaft 59 (Hende did a fine replica) and Eagles and things up to 70s and beyond. In the UK John Goodall carries an impressive stock and Mike Clanford's book will steer you through difficult waters encountered. Motors collected are hardly ever run and so I'm a firm believer in Castrol R well applied once the new arrival has been freed up (hot water and/or hot oil often does the trick). But don't force anything. Time is of the essence....And do remember that the skills of Mike Crisp are waiting to repair, fully restore, make bits or tackle a complete rebuild of a hi tethered car of the 1950s as here. For the record these are some 16in long, McCay powered via a shaft to the front wheels and were sold as kits based on the Maserati.

Peter's Place

Many years ago methods engineer Peter Randall of Bromham, Bedfordshire, showed me an early home-produced edition of a mag devoted to Hornby. These days the IHRCA is a highly professional body, several members offering a good variety of services - including repro boxes. Our kit boxes are sometimes less than mint and I'm wondering if, somewhere, a good fellow is making one or two (the Phantom Mite and Junior 60 spring to mind) to smarten up his model room. Peter was a founder member of the HRCRA, wrote The Products of Binns Road (New Cavendish) and another on work study and methods. He told me that he loved tinsplate models (Hornby boats, cars and aeroplanes as well as Frank Hornby's famous trains) but had no interest at all in scale or full size railways.



Super Day

Every two years the Midland Air Museum hosts the GAvA, a hangar full of aviation art attracting good types from far and wide. Leading from the front, Chris Heath and chums arrange a table-groaning buffet, stylish programme and tours of the many aeroplanes there. My first time inside an Avro Vulcan, I was surprised at the height of the climb up and the tiny space for the crew of five. First opened by Alex Henshaw, this was my fourth visit and yet I still have much to see. Loads of books and models in the shop, the new DH Dragon in AA livery a treat at £29. That's black and yellow, the latter from the days of Lord Lonsdale, the famous Yellow Earl. Close to M1 and M6, Coventry Airport is the place.

Will's Way

National Service in the RAF was perfect for modellers. Chum Will Roe did his two years on Meteors and Hunters, for a time at North Weald (Squadrons 601, 604 then III which went on to form the Black Arrows). Then came design and illustration with Rolls-Royce. These days Will builds and collects and edits Wheelspin, mag of Coventry Diecast Model Club (024 7649 1383) which meets at the Midland Air Museum.

Like Brummell

A boxed set of three large catalogues covered the 9-day Windsor Sale in New York in September 1997. Married to Wallis Warfield, the Duke lived abroad in great style, even his many travelling boxes specially made as here HRH David (Edward VIII was always known as david) flew a DH Dragon in Guards red and blue, shot at least three holes-in-one, enjoyed top tailoring and



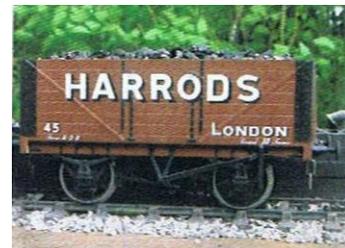
loved America. The thousand lots and more reflected this, the catalogues now highly collectable.

Basil's Extras

S&T chums new to ED may not realise that Basil Miles built way above the run of engines sold by the firm. Mike Clanford's essential book show a few but I recall seeing three or four of 30cc and more, possibly with boats in mind at some stage. As mentioned, there was the impressive supercharged twin and the bike engines, all crafted in the large garden workshop to which was attached a house. Ever a 246 Racer fan, Mike Crisp has souped one or two for me.

Get Truckin'

Rods sold everything in the old days, even coal. Perfect for goods trains on the layout, two designs are available from Chris Harnett on 023 80904290. NB these are transfer/decal sets in Gauge One, but reduction should be easy at Ryman's. Rods had two London coal yards, 140 wagons and sold 40,000 tons a year. The great store could provide lions, elephants and chimps on request.



From Ted And Tom

Vintage gliders are delightful, several German designs most impressive. Ted Horne's Fillon's Champion (S&T 80) is a stunner for sure and I seem to recall long ago a mighty glider with CROYDON writ large on its sides. And from Tom Andrews warm reminders of Camden Town, chum David Baker and Henry J and his magnificent model shop. Much fond of the whole area, Camden is great for jazz, characters, stationery (my Xmas cards are done there) and street stuff like art and dancing (my moves are sharpened in NWI). Cheers, Tom and Ted.

King's Cross

And just south of Camden Town we had the London end of the LNER, Gresley's office and 3-cylinder streamlined A4s barking their way up the sharp climbs of Gas Works (528 yards) and Copenhagen (594 yards) before the fall after Finsbury and the long climb to Potters Bar. Artwork of the age, as here, put passengers in the mood for puffer traction in style. Spats and hats were the thing back then, correspondent shoes if you were a bounder.



Bomber Boys

Small replicas of the crew in the Bomber Command Memorial are being produced by Philip Jackson. Noted for his excellent work, Philip's Terry Cuneo stands 9ft and more above the several steps to the platforms at Waterloo. As a pilot reminded me, many on the Dams Raid were very young. One Old Etonian pilot who failed to return was just 21. Figures in the replicas are 2ft.

Sunduster

Very complete kite for this Vintage model await. Mentioned before and fully covered in May, Sunduster is another great from Raynes Park's team of good chaps dedicated to proper aeromodelling. Gerry, John and Mike know their stuff. Well done all! Order on 02085423100.

Events for 2014

These are few of the dates for 2014 some are subject to confirmation. More next month.

13 April	Control line	Wimborne MAC - Cashmoor
20 April	Open vintage & Nat Tomboy	Dorset M F G Nr Blandford Forum
27th April	Middle Wallop FF CL & RC	

1st June	Middle Wallop	FF CL & RC	
22 June	Open Vintage RC	VPD CL some FF	Dorset MFG near Blandford Forum
13 July	Open Vintage RC with Wessex League	Tomboy	Iminster / SAM 35 Merrifield
20 July	Cocklebarrow	RC	
24th & 25th August	Middle Wallop	FF RC & CL	
28 th September	Middle Wallop.	FF CL & RC	
12 October	CL		Wimborne MAC - Cashmoor
12 October	Cocklebarrow	RC	

DMFG events you can contact myself JP or Bill Longley - tasuma@btconnect.com
DMFG events there will be tables etc for anyone who wants to bring along anything to sell, bring & buy.

P E Norman memorial These are provisional rules but will give you an idea what is brewing!

In memory of P E Norman who passed away on 17 July 1964, whilst flying his models at Epsom Downs, it would seem to be only right to acknowledge his aeromodelling skills in the form of a suitable memorial tribute. To this end at the June 22 Middle Wallop meeting we would invite anyone who can construct a P E Norman design and come and fly it. Some of his models are not the easiest to reproduce therefore to give some form of focus we will run a very basic competition based on the Natsneez free flight only. This will not exclude RC versions which can be judged on a concours basis.

The model should follow the plan closely and be of same dimensions there being 3 categories.

The easiest will be the best looking (Concours) P E N design but it must fly for at least 20 seconds!

A simple precision event IC powered whereby there must be a motor run then glide, total flight lasting 60 seconds and landing within 50 metres of a marked point, the point will be same as launch marker. No motor cuts offs allowed. Purely guess the fuel and when you launch. Every second away from the 60 seconds will be a lost point but landing inside the 50m area will gain 15 points. Max score therefore will be 75 points. If there are any equal times then there will be a second round and so on.

A second similar comp will be held for an electric powered Natsneez. Same basic rules a 60 second flight and landing within 50m of a marked point, same as launch.

It would seem reasonable to keep IC and electric separate.

If on the day the weather is so fantastic or awful the time and 50m rule may be altered accordingly. E.g. if very windy then the point of launch cannot be same as landing marker and 60 seconds may be too long a time.

So there will be a concours comp any model IC, electric, glider, RC can enter but must fly 20 seconds minimum. A spot landing for IC and separate for electric utilising the Natsneez. jamesiparry@talktalk.net

Robbo Model Products

Barry Price Robinson

27 Langley Road

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Newton Aycliffe

07983956665

Co. Durham. DL5 5RJ

I will be stocking a full range of model products, suitable for Control Line Stunt Models.

Some products, I will be making, other products will be sourced by me and tested for use in Aerobatic models, and other parts will be commissioned by me and specially produced for use in Control Line Stunt.

I will be stocking:

Propellers: A range of 2 blade tractor and pusher, and my own hand crafted 3 blade units Plug and play electric systems from Keith Reneale (via Roger Ladds) and different ESC's to suit the model size and your preference.

Igor Burger advanced timers and Esc's with accelerometer.

Control systems, and Igor Burger designed Logarithmic units in high quality stainless steel.

Carbon landing gear: (2 piece) superlight (8gm), and a range of sizes above.

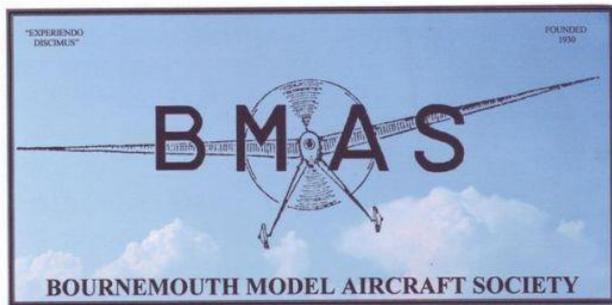
Carbon spinners + Lightweight carbon spinners, from Peter Jenkins, wheel spats, lightweight wheels. Etc.Etc.

Carbon wing and fuselage joiners.

I will also be producing a range of 40 and 60 size kits of my new design with laser cut rib and fuselage sets.

Ready built models **TO Order**, and built in strict rotation of order date.

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FREE CAR PARKING IN PUBLIC CAR PARK IN ALLENDALE RD
COMPETITIONS incl GYMINNIE CRICKET LEAGUE

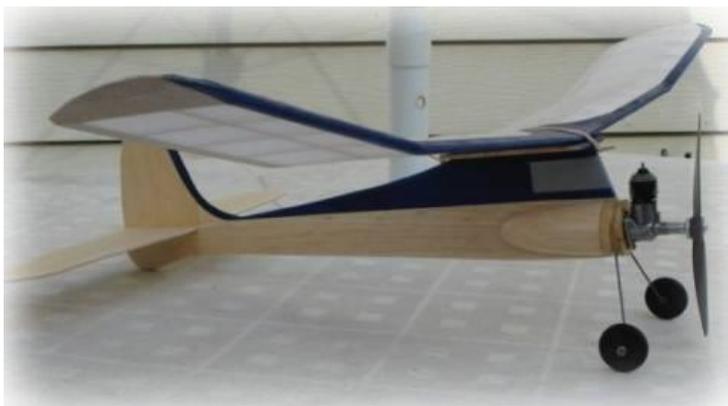
28TH JANUARY 2014
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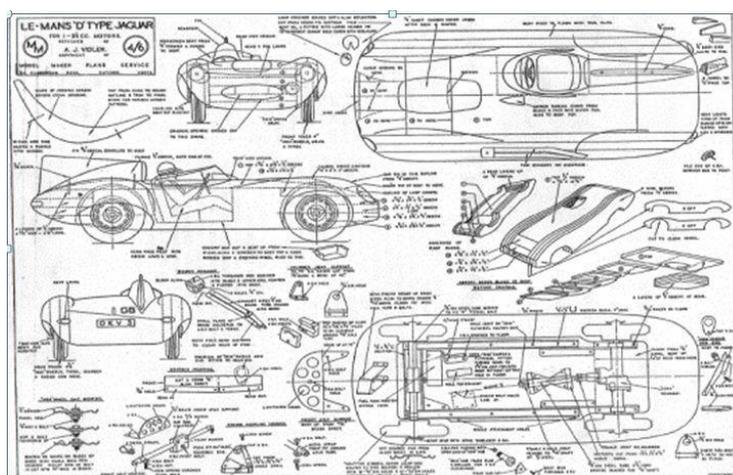
NOT S&T

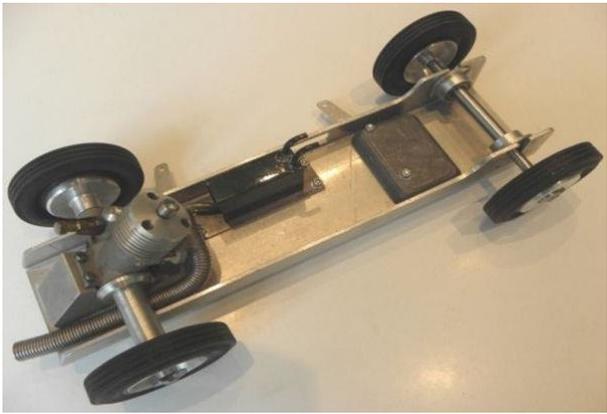
From Steve Betney

In case it's of any interest, I attach a slightly re-written copy of an article which has just appeared in the latest issue of our Retro Racing Club's Newsletter. It covers the construction of my 1/10th scale Jaguar D Type tethered car model, such a lovely subject, & I've included a blatant invitation for interested parties to make contact with the RRC, as membership is slowly declining as the years pass, like SAM, alas. Incidentally, when this Word article was opened & printed out as hard copy for the RRC mag by Peter Hill, the printed copy had a part sentence from the top of page 3 scrambled with the first paragraph text for some reason that we haven't been able to fathom, so you might like to check that this hasn't happened if you do use the file. Hopefully it will not corrupt if you stay in electronic form & don't go through the print process that's used for the RRC Newsletter.....

1/10th SCALE JAGUAR D TYPE MODEL by STEVE BETNEY.

Some 6 years or so ago a small number of MVVS tethered car moving chassis assemblies in "New Old Stock" condition became available via eBay from the Czech Republic. It is believed that up to 100 of these were made by MVVS in the late 1950s or 60s, & they were powered by an MVVS Junior 2cc front rotary diesel engine with a fixed 2nd shaft replacing the back-plate, intended for a Mercedes Benz W196 Silver Arrow carved wooden model body. The original chassis drawing by Jaroslav Broz shows a Bus 2.5cc f/r diesel for power, though I don't think that this was ever produced in any quantity. I bought one of these because it looked well & solidly made, & in the hope that I could use it as the basis for a Jaguar XK 120, 150 or D Type model. Working from scale drawings of these types, the wheelbase, track & tyre diameter were a close enough fit for a 1/10th scale D Type, & good old Peter Hill of the Retro Racing Club provided a print of the 1/8th scale Model Maker plan no. MM 367 for this from the Club's plans bank, which I reduced to 1/10th scale by photocopying it in sections at 0.8x magnification.

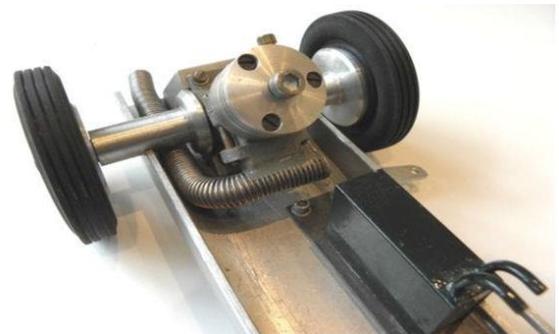




At this stage it was thought that this might be quite a quick project, & being reasonably pleased with the build quality of the chassis I had, a second one was procured when the chance came up, with the intent to make 2 models. However, hard experience shows that making 2 identical models on a project like this takes just about exactly twice the time it takes to make one, the only time really saved is in the research, planning & parts procurement stages. Dear Reader, please see later, this might just provide someone with an opportunity to get a quick & relatively easy way to acquire such a model!

The MVVS tyres fitted were rather plain, non-scale types which were just beginning to craze with age, & it was found that

replica Movo Pirelli 70mm diameter ones would fit nicely & vastly improve scale appearance, so I managed to procure some sets of these from Hungary with Stu Robinson's help. The cast Movo/Pirelli lettering was carefully shaved off with a sharp scalpel & they were then sanded to a nice matt finish in the lathe & they look great, but with no "Dunlop" lettering as would be ideal. The original screws used by MVVS on the chassis were rather average quality, so all of these were upgraded & nylok nuts fitted. I didn't feel that the front lead balance weight and tether line attachment bracket were appropriately secure, being retained by the original M3 screws threaded into the weight (yes, a thread cut into lead....), so I put longer screws right through, secured by nylok nuts. A KeilKraft 15cc team race fuel tank was modified & fitted using a brass mounting plate. I eventually managed to get hold of a couple of MVVS Junior silencers, & these were cut down to just the manifold stub secured to the engine's exhaust by 2 screws & glued with metal epoxy into a reticulated, bendy stainless steel 8mm i.d. pipe with a blanking plug formed to serve as a rather neat rear exhaust exit arrangement (see image).



To make the bodies, I had some top grade obechi wood custom sawn & sanded to 10mm final thickness, & made up 2 sets of parts for the laminated body construction. The central body section is made up from 6 obechi slices & the sides from 3 slices each, all band-sawn to individual shape & glued up with Franklin's Titebond glue under pressure. The centre section I chose to secure to the chassis with 3 spring tool clips, one fixing round each of the front axle ball bearing housings & a single rear one gripping the dummy shaft on the engine.

It's a lot of fun carving the under-body to fit the front & rear chassis ends & particularly around the Junior engine's cylinder & fuel needle valve areas, & some special metric cap screws were needed to replace the original T bar compression screws which would have spoiled the appearance of the cockpit top & driver's shoulder area. One set of the top & side laminated parts were then glued up to make a whole body blank, then the job of shaping by carving & sanding the inside & outside to shape undertaken – LOTS of careful work here, particularly the rather thin sectioned wheel arches. When completed & finish sanded, the cam-box cover bump on the bonnet & the nice rear fin & its fairing pieces can be added & finished to shape. This is followed by a few coats of cellulose sanding sealer carefully rubbed down between coats & then I chose to use a tissue & dope



covering to give a harder skin to the obechi surface. I just love louvers on a model, so some laminated blocks of shaped louver were made up from strips of 1.5 & 1.0mm shaped basswood sections which were then carefully set into shallow rectangular recesses cut into the finished top of the body. The final external body details to be added were the driver's rear view mirror, an obechi carving with a mirrored plastic facing, & a pair of rear lights sawn to shape & filed up from some small pieces of 5mm thick aluminium sheet, polished & attached with screwed pins.

The driver figure used is one of Dave Banks' beautifully sculpted 1/10th scale British 1950s types, made by Dave especially for this particular model (& suitable for all other 1/10th scale types of course), as advertised on the back of the RRC Newsletter #49 for Winter/Spring 2011/12. This was fitted with small neodymium magnets embedded with epoxy glue into sides. The casting which be found of the spoke type.



The steering wheel is an American repro O&R was the only decent quality item that could correct size, though it should really be a 3

Now that the final cellulose fit working headlamp covers metallised plastic

body was completely shaped & ready for finishing, I had the bright (groan.....) idea to headlights, as I wanted to fit clear acetate anyway. A pair of 15mm diameter, model boat searchlight bodies were found to

be suitable, fitted with 6v grain of wheat bulbs (though I now wish that I had used small LEDs for longevity & cool working). The recessed housings for these were carefully gouged out in the front wheel arches, after moulding the acetate around the headlamp position areas by draping over-sized pieces of thick sheet over them softened with a heat gun & using cotton gloves to hold them in position until cooled & re-hardened, then finally cutting these to oval outlines & cementing into position. The wires from the bulbs exit through holes into the front wheel arches & are connected to a strategically placed toggle switch placed near the driver's side front wheel arch in an accessible position. The power source is a 4xAAA battery pack in a plastic holder mounted with screws on the underside of the bonnet, so all parts are together

in the removable body shell. After masking off the now installed headlamp covers & rear light fittings, a few coats of grey cellulose primer were sprayed on & rubbed down, then many, many coats of Jaguar British Racing Green cellulose paint sprayed & rubbed down between coats, this stage taking place on & off over a period of years! Why years? Basically because I have far too



in the removable body shell. After masking off the now installed headlamp covers & rear light fittings, a few coats of grey cellulose primer were sprayed on & rubbed down, then many, many coats of Jaguar British Racing Green cellulose paint sprayed & rubbed down between coats, this stage taking place on & off over a period of years! Why years? Basically because I have far too

many bloody projects on the go at any given time across my various interests, & I move around between them as my mood & motivation take me, though this might be my excuse for lack of application & concentration.

The model as pictured here is still probably not in its final form, as I haven't yet decided whether to turn up a new set of alloy hubs each with 15 drilled holes to simulate the lightweight pressed aluminium rims used on the Le Mans D Type cars, or perhaps get my contact Chris Garcia in California to make me up some scale 54 wire spoke wheels as fitted to the development D Type, as I think that these would look even better. We'll just have to see. I have also moulded a wrap-around windscreen, but have struggled with finding a really neat & scale way to attach this without marring the body top. When these weighty deliberations are finalised I shall add appropriate final body finish details like racing numbers & road number plates then gloss fuel proof it all, but until then I will continue to love it in its plain BRG livery, as it sits alongside the much smaller scale repro Vega D Type Jag on my shelf.

COMMERCIAL. I'm probably never going to get around to finishing my second model, so if any interested modeller would like to save around a couple of hundred hours on the build time, I'm prepared to see this go to a good home in exchange for a suitable European tethered car project in need of build or restoration, most preferably a scale type, or interesting



vintage model aero engines, or WHY? You will get the upgraded MVVS rolling chassis complete with engine, silencer, tank, Movo Pirelli tyres etc, with all of the laminated wooden top & side parts glued up, prepared & ready for final gluing up into the full body shell & finishing, & with every other part needed to make a model like mine (electrical parts for lights, steering wheel, spring clips, driver figure, windshield etc). Please contact me on 02077229129 or email to stevebetney@aol.com if you're interested.

If you are interested in model tethered cars, you really should join the Retro Racing Club, the only club in the UK dedicated to these, & with some tethered hydroplane coverage too. Peter Hill is the editor of the quarterly RRC Newsletter magazines & the main contact, & you can contact him by email to arty.pole@gmail.com or by phone on 01507 450325. He has the only proper tethered car racing track left in the UK at his home up in Great Carlton, near Louth in Lincolnshire. 2014 track meeting dates are April 20th, May 11th, June 15th, July 27th, August 10th, Sept 1st, Sept 28th & Oct 12th. Why not contact Peter now to join, or at least arrange to attend one of the meetings as a guest observer? Quite a number of the RRC members are fellow aeromodellers, by the way, so you'll probably see some faces you know already. Come & join in the fun.



THE END