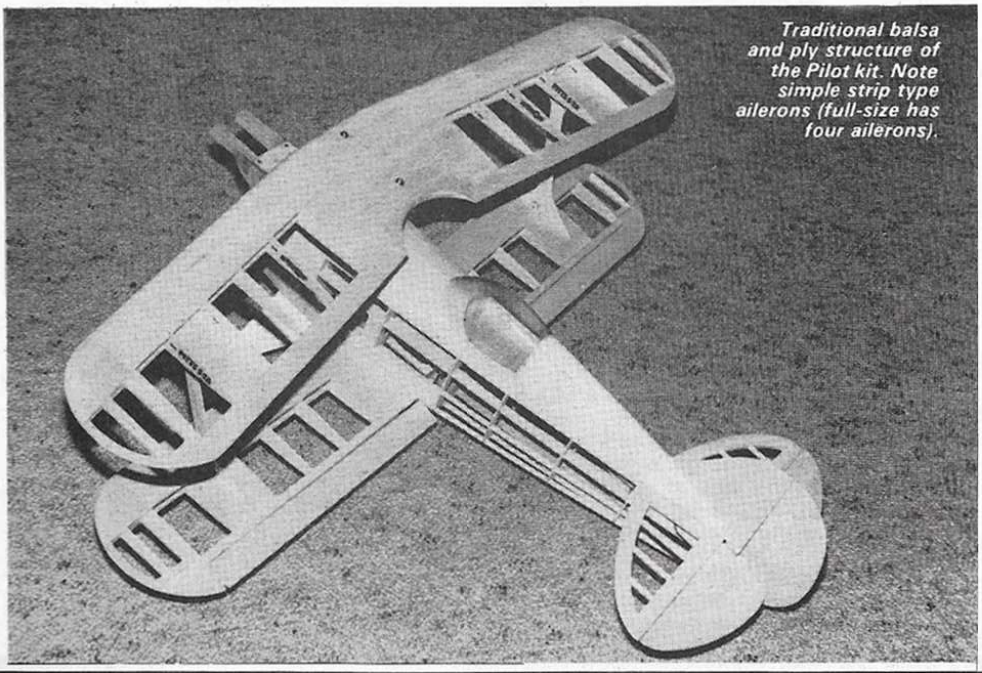


Traditional balsa and ply structure of the Pilot kit. Note simple strip type ailerons (full-size has four ailerons).

Pilot Pitts S-2a reviewed by Derek Giles

What a delight to put together this kit was, from the moment the box was opened right up to the successful first take-off and landing. *Pilot* have succeeded in producing the best die-cutting that this reviewer has ever encountered, no more than two or three of the slots in any of the multitude of ply formers and longerons for the fuselage, needed more

than a touch with a file to produce a good fit, in fact the fuselage could easily be accurately assembled in the hand without the use of a board, and end up straight and true. Only two or three minor niggles remain; firstly, why no hinges, or wheels? Small extra cost surely to include them, and I must have spent the equivalent in petrol visiting my local model shop to purchase them. All nuts and bolts were small Japanese metric types, not really a niggle, only to be expected on a Japanese product but I replaced all of these with BA equivalent as it is almost inevitable that one or two will be lost in the lifetime of the model, and BA screws are easy to replace.

Fuselage

I started construction with the fuselage, many step by step photographs included on the plan replace full written instructions coupled with the full numbered key on the plan, and the fully drawn out parts guide printed on the reverse of this plan, construction was pretty straightforward.

I firstly built the lower wing mounting box framework using this as a basis for the rest of the open frame structure. All crutch pieces, longerons and stringers are of die-cut ply, the only balsa used is for the top decking and nose area fill-in blocks.

The engine, an *Irvine* 'Sport 40,' was mounted on the hardwood bearers and I decided to make up a complete internal silencer system. A recent visit to a local ironmonger drew my attention to a *Camping Gaz* kit for brazing aluminium. I purchased a kit and set to to braze together a suitable exhaust system — the results of which can be seen in the photographs. Fitting this system required trimming away a fair amount of the ply engine bearer braces, so I felt it prudent to add a little extra reinforcement to the top side of the bearers to stiffen up the mount again.

A ply servo mounting plate was included and after fretting out for the servos and switch, I found that I was unable to get the fuel tank in and out. Easily solved this one, just cut the tray into two sections, one for servos, one for the switch and, problem solved. A strip of scrap ply and two small woodscrews neatly retain the tank in its compartment.

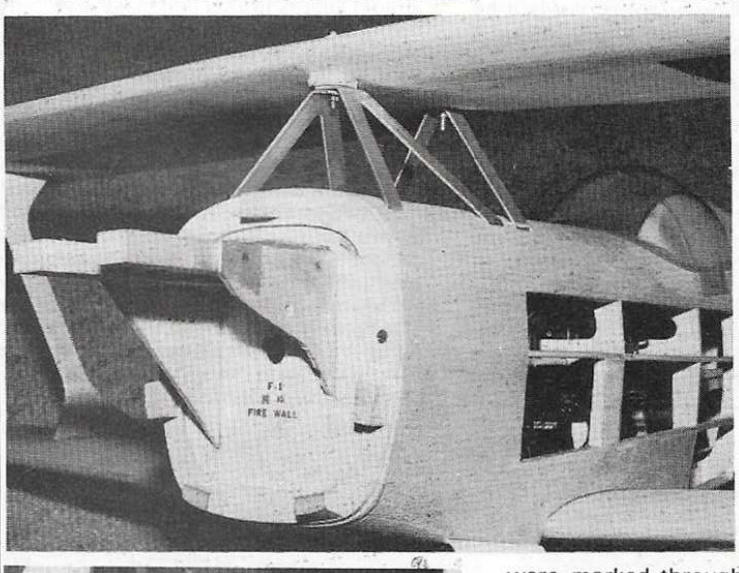
Sheet balsa tail surfaces, fin and rudder were quickly glued together, sanded as required, and fixed into position.

A vacuum formed cowl and wheel spats next claimed my attention, not wishing to end up with an unsightly butt-join I dissolved some shavings of the plastic in cellulose thinners and used the resulting 'pudding' to bond the halves and fill the joint, filing down and smoothing the joint when all was hard.

The screws supplied for retaining the cowl were tiny, I felt that if they were to be removed many times from their wood blocks they would have to be replaced with longer ones. The cabane struts are of pre-formed aluminium alloy strip and glue into pockets formed of a ply and balsa sandwich in the fuselage top. Key in holes for epoxy glue are drilled in the ends.

Wings

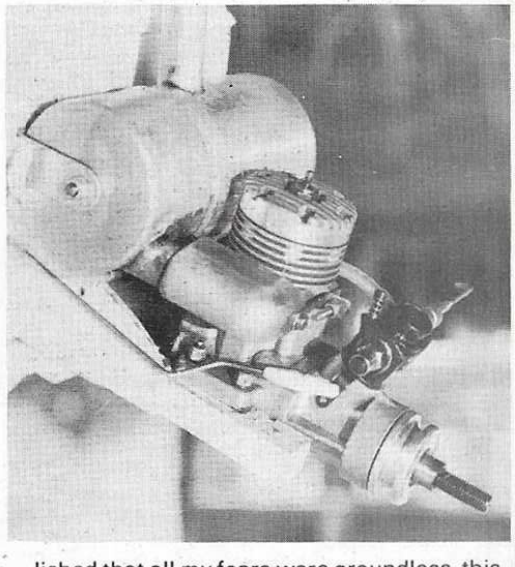
Wings are very straightforward, I did need to examine the plan and parts thoroughly before starting, written instructions may have saved time, but lack of them certainly didn't prevent me from making rapid progress towards the final assembly stage. Interplane strut attachment points are built into both wings, the struts themselves are over length. If wing seating tape is to be fitted, fit it before fitting these struts. I checked very carefully that incidences were correct as shown on the plan and that the wings were parallel. A small amount of ply packing was added to the front cabane and filed down until top wing incidences was exactly as shown. Then the struts were offered up into place, fixing holes positions were marked through the 'd' shaped wing tabs on to the struts which were then drilled and trimmed to suit.

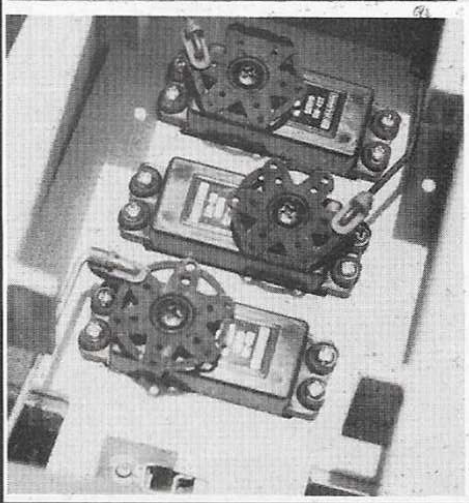


Left: engine mounting of Pilot Pitts with reinforcement relieved to clear silencer. Note simple and practical wing and strut attachment.

Right: completed engine installation. Home-made silencer constructed with the aid of camping gaz aluminium brazing kit.

Below left: radio installation. Ply plate had to be separated later into two sections to allow tank removal.





Finishing

Traditional construction equates nicely with traditional finishing techniques and apart from using Coverite heat shrink nylon (which is fabric anyway) dope, nylon and cellulose techniques were used. One pack of Coverites (one yard) just covered the flying surfaces, the fuselage was covered with Micro-Mold lightweight nylon. After clear doping and rubbing down, the whole model was sprayed with three coats of white primer, primer having better covering power than gloss, and when gloss fuel proofed who can tell the difference?

The chequer pattern on the underside was masked off using Magic/Marker marking film and the red chequers sprayed on. Remainder of the red trim was sprayed after masking off with sellotape, the black trim lines produced with a ruling pen. Final touches were added courtesy of the Pilot Kit self-adhesive decal sheet. For the curious, the pilot's name, Len Comario, is an anagram of Marion Cole, the pilot's name decal supplied. Unfortunately, Mick Reeves models do not produce a female version of their quarter scale pilots, quarter scale being the nearest commercial pilot I could find.

An all-over coat of Tuf-Kote readied the model for re-installation of my *Sanwa* FM equipment.

Flying

Short coupled, highly aerobatic, high powered bi-planes tend to make one a little apprehensive about first flights. I checked and re-checked CG position, control surface throw sat up just as per plan, weighed the model 5lbs 3ozs, ran the engine several more times, but could put off the evil hour no longer. A quick 'phone call to RCM&E Editor Bill Burkinshaw, to organise a photographic session at our club flying site, and I was committed.

A very light breeze and clear winter subshine was our lot, and photographs over and engine running I lined up the Pitts for a take-off. Dreading a groundloop I was reluctant to apply too much rudder on take-off and the final attempt saw the Pitts curving gracefully off to the left. No go, but we soon found that she would taxi well on our grass patch! Not wishing to push my luck too far with juggling all the sticks simultaneously on take-off with what I fully expected to be a handful of biplane, I put in full right rudder trim and commenced my second take-off run.

On half throttle, I didn't have time to open it any further, the Pitts was lifting gently into the air and with power to spare climbed steadily away. A few circuits rapidly established that all my fears were groundless, this little biplane was a delight. Smooth, responsive low flybys no problem, and I soon heard Bill's camera clicking away by my right ear. Caution had dictated that control throws were cut down by use of the rate switches, but once full throw was switched in aerobatics were attempted. Rolls, four point rolls, snap rolls, loops inverted, all that we could squeeze out of the model she would do, and does she look nice in the air.

On low throttle the model floats and the first landing was misjudged because of this, I just didn't expect the Pitts to glide so well.

A well presented superbly produced kit, not a beginner's model when it comes to flying, particularly as it is not very large and it is fast. Disorientation could be a problem for the inexperienced, but for the small aerobatic bipe fan a winner, and it fits into an Escort boot fully assembled.