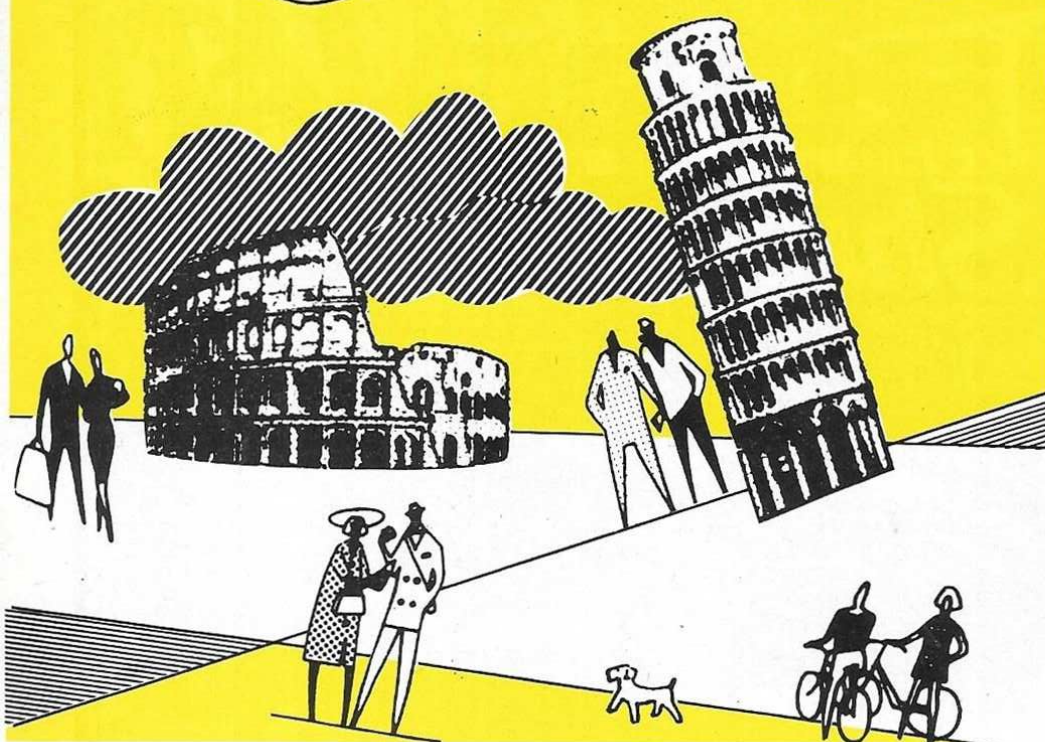
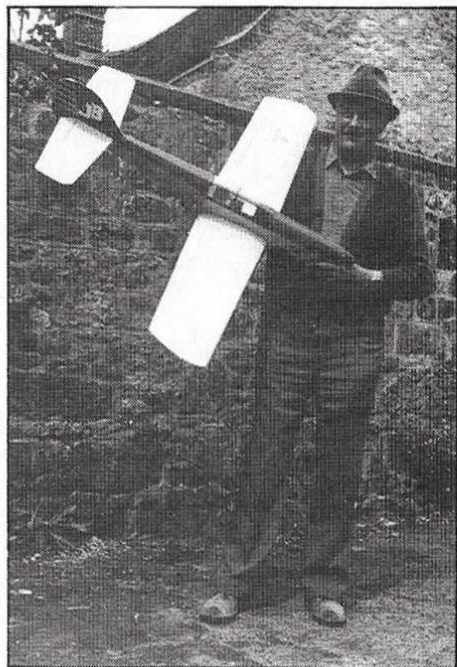
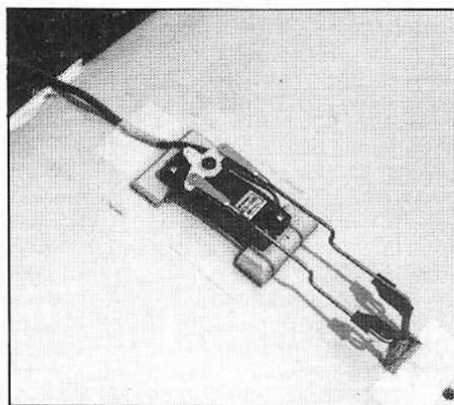


Renate

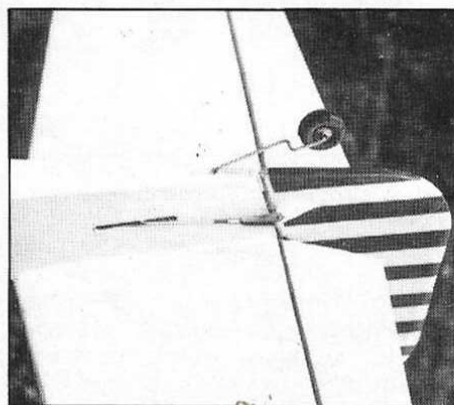


JOHN BRICKELL describes his 44½ inch span aerobatic model for four function radio and .20 four strokes

This model was developed after visiting a very cold and windy Southern Gala, where the only aircraft that turned my head was a small own design model powered by an O.S. FS-20. Although a bit boxy for my liking, this model led me to one alternative, if a small aerobatic model was really what I was looking for, I would have to design and build my own. After a fair bit of drawing board bashing, Renate was designed. The following is a procedural guide for those of you who wish to build and fly Renate.



Above: aileron servo installation. Left, designer John Brickell looks pleased with his streamlined creation. Below, tail surfaces, showing linkages and tailwheel.



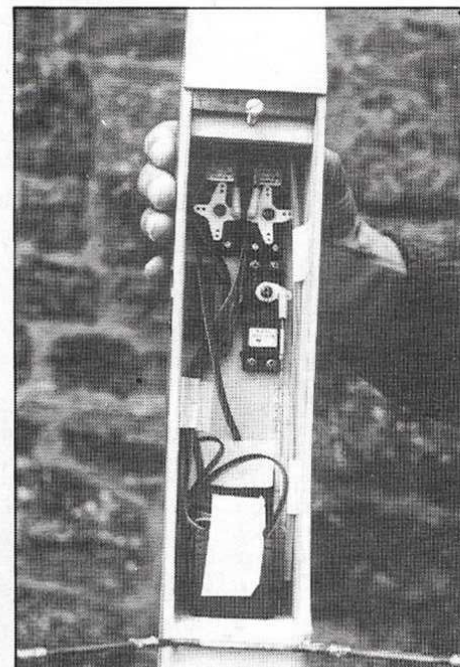
Stick A to B and ...

It is always best to start with a kit of parts, this allow all cutting to be completed and leaves a clear bench on which to start construction. After gluing formers 2C and B together, construction proper can begin by fitting the engine bearer to F1. If blind nuts are being used lay the fuselage with doubler uppermost on the workbench then glue F1, top tank bay decking and F2 to the fuselage, making sure that F2B and C fit into the appropriate slot. Check finally that F1 is square to all the other surfaces. The servo deck is next to be fitted, followed by F3 and F1b and the lower tank deck. When all this is dry, glue fuselage side number two into place, check that all is square and leave to dry. Assuming that everything is O.K. so far the tail end of the fuselage can now be glued together. The front decking is cut from 0.4mm ply, fitted dry and held in place using masking tape, this is done so that the fuselage sides together with the position of F1 and F2 can be marked in. After shaping, glue the front decking in place using contact adhesive. Be careful not to spread the adhesive where it isn't needed, it is very hard to sand off. Finally, add both of the balsa stiffeners between F2A and F3. The tailplane can now be added along with F3, 4, 5, 6, making sure these are all true and in line. Trial fit the ply decking marking F3A and F6 and fuselage sides. When cutting the decking, leave extra on the front, allowing this to be sanded level with F3A. Rear decking is fixed with contact adhesive as the front. The fin is now glued in place and the rear decking tack glued to it using cyano and fillets made to suit. The tail wheel is then made up and fixed to F7. Bottom tank bay is next, followed by fuselage bottom grain, crosswise of course.

Cowling and Canopy

With the engine in place and the prop and spinner fitted, tape C3 to the spinner with a ½in spacer in between. Glue the cowl sides between C3 and F1 and then glue C1 to the sides. Fill in the scrap balsa, screw C2 to C1, fit C4 and glue balsa sides in place, fill the rest of the spaces with scrap balsa.

The fuselage is compact, so a neat radio installation makes life easier.





Renate has the lines and performance of a much larger model without the expenses.

and sand to shape. The canopy is cut from a commercial glider canopy.

Wings

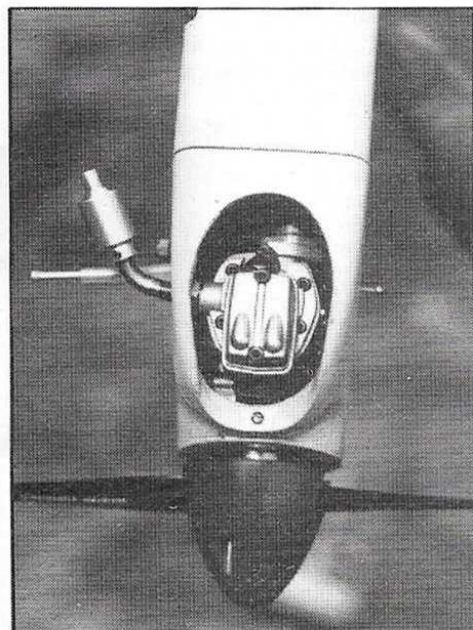
The wing ribs are made using the sandwich method. There is no place in the construction that needs any special mention as anyone building Renate will also have built this type of wing previously. However, the fitting of W1 may need further explanation so here goes. When the fuselage has been sanded to shape, cut and drill W1 from 1/16 inch ply. Fit this to F2 with a short piece of

dowel, then ease the wing into place. Make sure all is square and true, then tack glue former and dowel in place, remove the wing drill the leading edge and epoxy the dowel finally in place.

The tailplane fin and rudder are all built over the plan and should present no problems whatsoever.

Flying

As stated, Renate is aerobatic and will fly all the manoeuvres if you can. Renate is also very fuel conscious she has had se-



The fuel concious OS FS-20 (seventy flights on .75 gallons of fuel) sits neatly inside the cowl.

venty flights so far and used just three quarters of a gallon of fuel. That's pretty good in anyone's book. Take offs are no problem, a touch of right rudder and full up elevator until she is underway, let the tail up and fly off. Landing approaches should be made at half throttle, until Renate is over the runway, when this point is reached cut the throttle and fly her in. The only advice for dead stick landings that I can offer is keep the airspeed up.

Good luck with Renate and many happy landings.