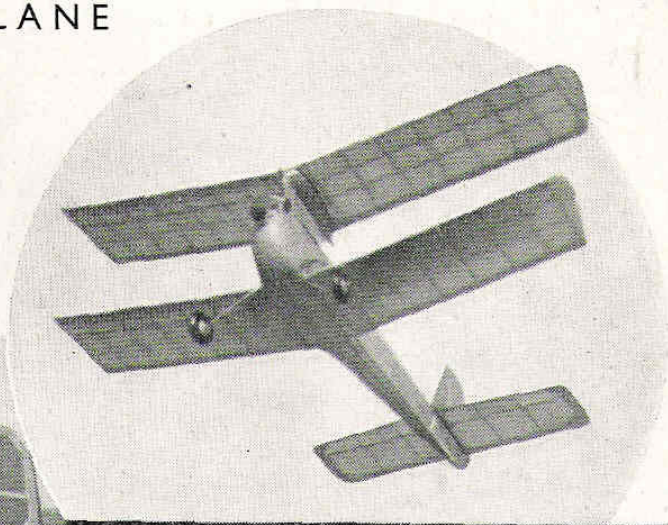
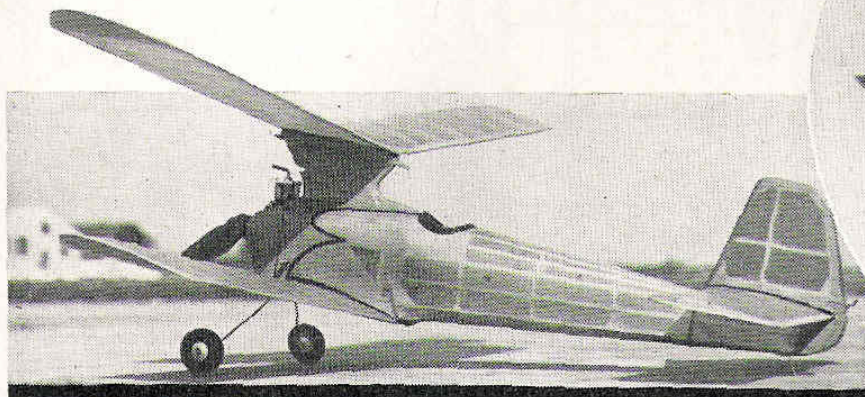


A 30 INCH SPAN SPORT BI-PLANE

DESIGNED BY J. S. HUMPHREYS

Age 28 years Secretary "Saints" M.A.C.
 interested mainly in large power models modeller
 for 17 years now bitten by Radio Control bug
 prefers Sport flying to Contest work.



SPORTY

THIS neat little biplane was sent by the designer to the Editorial offices for us to test and photograph. As a result we enjoyed a very pleasant hour's flying with a model that is delightful to handle, surprisingly stable in flight and very pretty indeed to watch. Biplanes have flight characteristics that are different to the ordinary run of models. We can never really explain what it is, we only know that we never tire of watching them in the air and this one is no exception. And now let us make way for the designer's own comments:—

"Sporty", as the name suggests, designed for sport flying, was thought out originally for ease of construction, straightforward trimming, good looks and use with small engines. It has proved to be a reliable and consistent flyer in all weathers, powered with a variety of engines from .75 c.c. to 1.8 c.c.

All radially mounted engines have used the same bulkhead, and for beam mountings, Juncero metal strip formed the bearers. Differences of engine weights have so little effect on the trim, that slight alteration of tailplane incidence is all that is necessary. If ignition equipment is used, locate it directly above the lower wing.

Construction is quite straightforward and should present the newcomer to power models with no difficulties.

The fuselage is of the orthodox rectangular type with formers and stringers added, to which the pylon is attached. The latter is constructed first, and should be weighted while setting, to avoid distortion.

The front formers "C" are next cut from 1 m.m. ply and 1/8 sheet balsa, laminated as shown on the plan. Cut slots in

F2 and F3 for location of the pylon and cement them together. Undercarriage-box formers F1 are now cut from 1 m.m. and 2 m.m. ply and glued in position to the front of F2. The bolt-holes for mounting the engine should now be marked out and drilled.

Having built the basic fuselage in the normal way, add pylon and front former unit and, when thoroughly dry, remainder of formers and stringers, completing the fuselage construction.

Upper and lower wings are identical except for the position of the centre-section ribs, which provide the correct seatings for the fuselage and pylon. Note that the tip sheet is raised at the tip; this aids the model's stability. Regarding stability; do not substitute wing-struts for the pylon in an endeavour to obtain scale appearance. The alteration in the side area will make the model very prone to spinning.

All information necessary to construct the tail unit will be found on the plan.

The lower powered models should be covered with light-weight tissue, those with more powerful engines a heavy grade, resulting in a very robust model.

Neither down nor side thrust is used, as the combination of torque and right rudder was found to produce a tight left power turn and a small radius right gliding turn. These provide the perfect trim for flying from small fields.

For a real scale-type take-off, fit "Sporty" with a small pair of airwheels and you will get quite a kick from watching her, especially if you have seen the present day near-vertical contest take-offs.

A clever feature of the design lies in the fact that the undercarriage automatically locks the cowling in position; as can be seen from the right-hand photo below, left shows Sporty as tested at Eaton Bray powered with an M.S. diesel.

