

**Here's another  
lively near-scale  
sport model—  
span 58" for  
up to .40 power**

**KEITH  
HUMBER'S**



# BEBE JODEL

**H**ERE IS a simple near-scale rough field sports model, for all those who want something that "looks like the real thing" yet which has a sparkling performance. It was originally brought into being by the need of a model to fly quickly—an acute shortage having been caused by low inverted runs getting a bit too low (6 in. underground, in fact!). However, out of misfortune sometimes cometh good—and the *Jodel* has certainly turned out to be a really good 'un.

My original is powered with a K. & B. 40F (the Perry carb one), but if the structure is kept light, anything from a .29 would do comfortably. In fact, a great deal of the time one is flying on half throttle so as to keep the speed a little more realistic—on full throttle with the 40 she really goes, and uses up a lot of sky. I don't think I would recommend this model to the out-and-out tyro, even though the construction is simple (*don't worry, Keith—the tyro always wants to build a Lancaster complete with retract gear for his first model!—Eds.*). It is perhaps a little sensitive on elevator so, if anything, keep the c.g. a little

ahead of my indicated position, to start with. With the c.g. as shown, though, she is just right for me (and if I can fly it, almost anyone can). I think that keeping the weight down is important with this machine. The prototype weighed 5 $\frac{3}{4}$  lb. all-up, which included  $\frac{1}{2}$  lb. of lead in the nose (I always seem to build tail-heavy!) so keep that tail end just as light as practical.

## CONSTRUCTION NOTES

I think that most of the construction is quite straightforward, and that any modeller who wants

to build the *Jodel* would be quite capable of doing so without my interference, so I will simply point out the odd bits and pieces of note, here and there. Like the short engine bearers which enable the tank (6oz. square type), receiver, Deac and foam packing, to go in front of the cockpit. This leaves space for a proper pilot, but does tend to give a little trouble getting the fuel pipes through the firewall. They can be threaded through by inserting, temporarily, a piece of piano wire.

Otherwise, the fuselage is quite



conventional, having a  $\frac{1}{4} \times \frac{1}{4}$  in. basic framework on  $\frac{3}{32}$  in. sheet. You can do this in either of two ways. Either build the framework direct onto the plan, in the normal way for a non-sheeted fuselage, and add the  $\frac{3}{32}$  in. sheet sides afterwards—or mark off all the formers, doublers etc. onto the sheet, and build up each side on the sheet, remembering to make a left-hand and a right-hand side, of course. Note that the top edge of the sheeting comes only half way up the top longeron. This allows for the top deck sheeting also to be attached to the longeron. Join the sides together in the usual manner, starting at the front with the ply formers (using epoxy glue here), and fitting the remainder of the formers and cross pieces as per plan. The top deck formers F6, F7 and F8 are added after joining the sides, as is the "instrument panel," F3.

The rudder is  $\frac{3}{8}$  in. soft sheet, split on the hinge line to enable a piece of neoprene tube to be inserted as a pivot, held in place by friction only, and the rudder joined again. In my original, the rudder is retained simply by the push-rod (no trouble, in 18 months' flying) but, if you don't need to remove it for transportation, you can solder a washer onto the wire, above the tube, before re-joining the rudder halves. This is shown on the plan.

The wings are built up on the  $\frac{1}{4} \times \frac{1}{4}$  in. spruce spars; the trailing edge is fitted first, then the  $\frac{3}{8}$  in. sheet leading edge. The only unusual parts are the aileron horns. These are specially made in order to give enough aileron movement. They are made in the form of brackets, from dural, and bushed with P.T.F.E. tubing, as shown in the sketch on the plan.

The model is covered in nylon, with the exception of the tail surfaces, which are covered with heavyweight tissue, doped on.

### Installation

The original has Futaba 4 with linear servos. You may feel you need the proverbial shoe-horn to get the receiver, Deac and tank in the front bay, but



it will go. The Deac goes at the top of the fuselage, the receiver to the side of the tank. To facilitate installation and removal of gear, the front wing dowel is left "floating"—i.e. not glued in place.

### Flying the Jodel

Although it will seem all wrong to the more aesthetically oriented scale enthusiasts, my 40-powered prototype will virtually "do the book" and come back for more. Loops, bunts, rolls, climbing rolls, inverted flying, overhead eights—you name it, she will do it.

The stall turn, however, is surprisingly difficult. The rudder tends to roll the model rather than yaw it—presumably due to all that tip dihedral. The model

will not drop a wing easily, either—in fact, to spin one has to put in ailerons as well as rudder and elevator. Ground handling is surprisingly good for this type of model. Taxi out on low throttle, kick in left rudder to turn onto the runway, open the throttle, pull in a slight amount of up elevator and some right rudder—and away she goes, straight as a gun barrel.

In conclusion, I really must say that, of all the models I have made, the *Jodel* has been one of the real fun machines, and I am sure that those of you who build one will have a really great time flying it, just as I have.

Cylinder head from old engine was used (above) on model's left side, to match actual head shown below. Alternatively may be carved.

