



SPITEFUL
 MA J R BISHOP
 183 SPAN 27 LENGTH 24 3/6
 COPYRIGHT MODEL AIRCRAFT
 19 20 NOEL ST LONDON W1

A C/L scale model for 1.5-2.5 c.c. motors

The Supermarine **SPITEFUL**

by
J. R. Bishop



BUT for the advent of jet propulsion the *Spitful* would be a better known aircraft. By making its debut, as it did, in 1944 this descendant of the *Spitfire* was destined to but a short life. However, from the modeller's point of view the sleekness of the *Spitful* makes it an appealing subject for scale control line. The original model was designed for an Elfin 1.8 c.c., but any engine between 1.5 and 2.5 c.c. should be suitable, the choice depending on the purpose for which the model is required.

Construction is commenced by pinning down the keel and cementing all the half formers, except F1, F3 and F12. Cement one planking strip, about $\frac{1}{8}$ in. wide to the formers at approximately maximum width. Remove from plan, insert F3, the fuel tank with its pipes sealed to prevent entry of foreign matter and then cement the other half formers in place. Add a $\frac{1}{8}$ in. planking strip to these formers taking care not to distort the fuselage. Insert engine bearers if needed.

Build the wings on the plan in the conventional manner. Sheet the leading edge and centre section of the upper surface and give 1 in. dihedral under each tip. Cut away the centre-section ribs and sheeting between the two centre ribs to receive the ply mainspar W1, which should be complete with the undercarriage mounting brackets. Fix W2 in position, preferably with Durofix. At this stage the wing should be offered up to the fuselage, cutting away where necessary and cemented firmly in position, making sure of correct alignment. Install the bellcrank with its wing wires attached and then insert the elevator rod which should now be retained by soldering a washer. Do not allow an excess length of rod to protrude below the bellcrank, or it will foul on W3. Now Durofix W3 in position and make sure the control system movement is free.

The tailplane is now constructed as follows. Bind the hinges to the spruce elevator spar and cement this spar together with tailplane spar to upper sheeting. Add gussets and elevator horn, and trim ribs to shape. Cement lower sheeting in place

and sand the whole unit. Carefully cut sheeting between tailplane and elevator, and cut squares from lower sheeting below the hinges. Detach elevator from tailplane and sand leading edge of elevator to permit of easy movement. Cement hinges to tailplane and replace the squares cut from the lower sheeting. After adding two more planking strips to the fuselage it will be possible to cement the tailplane in position.

The fin and rudder is built on the plan and then covered with $\frac{1}{8}$ in. sheet. Separate rudder from fin and give about 20 deg. offset. Fit to the fuselage and add tailwheel. The fuselage planking may now be completed.

Although it may not appear so at first sight the undercarriage construction is really quite simple. To allow it to drop off easily the plug-in wires should be fairly free but not necessarily a loose fit, as the engine vibration will see to the discarding of these units. If any difficulty is experienced in getting the fit right remove the brackets from the mainspar and re-solder the tubes while held in position by the two plug-in wires.

The wing undersurface may now be sheeted and the air-intake, fairings and cowl bumps added. No suitable commercial bubble canopy could be obtained for the original and so one was moulded. Likewise the spinner which was turned from hardwood.

The colour of production *Spitfuls* was standard camouflage, but this is seldom successful on a model unless sprayed on. A pleasing effect can be obtained by doping the undersurface a light grey or blue and the upper surface a corresponding darker colour, and with a yellow band along the outboard wing leading edges.

Just one cautionary word before flying. The undercarriage is retainable if desired but the springing is mainly in an upwards direction. To avoid damage to wing, allow it to drop off during initial flying, when stunt flying, or when flying from a rough surface.