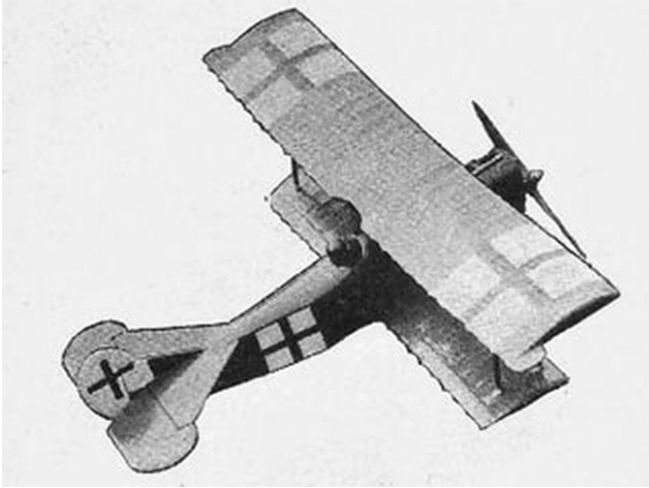


Fokker DVII



A Touch Little Free Flight Model of the Famous German Fighter by W.I Barrett.

Looking around for a relatively simple scale model to build of the first world war era, the Fokker D.7 catches one's eye as being an ideal prototype. The absence of rigging wires, the straight lines and large engine cowling all lend themselves to the design of a scale model (with the exception of the necessary dihedral, etc.). The original model was designed around the Kalper 0.32 diesel, but one has been flown with the Allbon Dart. The crash-proof construction has proved extremely effective, surviving many flights with only superficial damage.

Fuselage: Cut the fuselage formers to shape. Former A consists of one piece of 1 mm. ply cemented to the front of a piece of 1/8 in. balsa. Engine bearer holes are cut at a distance apart suitable for the engine being used.

Cut the fuselage sides as marked on the plan from 1/16 in. hard balsa. Formers A and B are then assembled on the engine bearers, after which the fuselage sides can be added and the remaining formers fitted in their correct positions. Note that the sides begin to taper aft of former E.

Next fit the aluminium tubes to take the wing and undercarriage struts, making sure that they are cemented securely in place. Also add the paper tubes for the lower wing dowels. Note that the wing struts must be in position in the tubes before assembly with the fuselage.

Photo below gives a good idea of the lozenge pattern camouflage used on the full size machine.

Fit the tailplane and elevator assembly, which should be cut from medium to soft 3/32 in. sheet. Cement the fin in place, and add the pendulum mechanism. The paper tube of this unit is wrapped round the wire after it has been bent to shape. The lead weight is flattened in the vertical plane to allow sufficient movement inside the fuselage. (Very little movement of the rudder is required and the fuselage sides act as limiting stops.) The paper tube is cemented to both fin and fuselage. The two wire inserts for the rudder may be roughed up with a file before cementing into the rudder. When the rudder operates satisfactorily, cement the tail-skid to the 1/8 in. sheet and insert in the fuselage.

Carve the noseblock to shape, and cement securely to the sheet sides and to the engine bearers. Cement the female half of the press-stud to the cowling side as shown on the plan. The top and bottom decking of 1/32 in. sheet can now be added. The cowling should be cut away for the control-levers of the engine being used. Also cut out the cockpit in the upper decking. Give whole structure two coats of sanding sealer, sanding-off between each application.

Undercarriage: Bend the various pieces to shape and solder together. Add the wheels, and then attach the small fairing wing onto the axle. The undercarriage unit is sprung into the tubes mounted in the fuselage, and will knock off in a heavy landing.

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Wings: These are of straightforward construction. The ribs are threaded onto the mainspar before the leading- and trailing-edges are attached.

The method of forming the scalloped trailing-edge is quite simple. First cut out a plywood template consisting of approximately five scallops. This is then placed progressively along the pre-shaped trading-edge, cutting round the indentations with a knife. The trailing-edge is then finished off with a piece of sandpaper wrapped round a pencil. Make sure the points on the scallops line up with the appropriate ribs.

When the basic wing frames are assembled, add the tips, and, in the case of the lower wings, the paper tubes. The center section of the upper wing is cracked in the center for dihedral, and then sheeted with 1/32 in. balsa for stiffening.

The female halves of the press-studs are then fastened securely to their correct positions. Care must be taken to prevent cement from fouling the springs in the fasteners. The male halves are soldered to the interplane struts, and whilst soldering is being carried out, they can be held in place by a simple balsa jig. Solder in place the center section fasteners at the same time. All struts have paper fairings cemented to them.

Finishing: Cover the wings in lightweight Modelspan and give two coats of clear dope. The whole model is then painted in one of the correct colour schemes of the period. If desired, engine details, guns and pilot can be added.

Flying: Trim in the normal manner by bending the elevators until a stable glide is obtained. Right sidethrust is important, and the model flies best with a small propeller giving high revs. A left turn under power, followed by a glide to the right, is the safest trim, but the pendulum rudder usually sorts the model out of any tight turns.