Fighting Sopwith Snipe

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FAMOUS SNIPE IN MODEL FORM OFFERS DETAIL AND FLIGHT TO BUILDERS

By Joseph H. Wherry



YOU fellows who still enjoy building scale models of World War I aircraft will now be able to build a flying model of the ship acclaimed by many as the finest of all fighters of that time. As far as the author knows, this is the first time flying scale plans for the Snipe have been made available in this country.

Here are a few reasons why the Snipe was such a fine fighting mechanism. It was developed after the successes of its forbears, the Pup, Tripe, Camel, etc., and was originally equipped with a 230 hp Bentley rotary; later with an A.B.C. radial engine. The Snipe could do at least 135 mph, climbing better than 1000 ft. per minute. The ship was very maneuverable and possessed fine visibility because of its open center-section in the upper wing.

Just one instance of the Snipe's excellence is the occasion in which Col. Billy Barker once found him-self when on a lone patrol. The Canadian Ace ran into one of Jerry's flying circus outfits numbering 60 fighters, and not to be outdone he fought an outstanding battle shooting down 7 before serious wounds forced him to withdraw. Yes, the Snipe was a mighty fine fighter and when it appeared at the front in the spring of 1918, the Huns, were just as unhappy about it as they recently were about the new 'P-47, P-51 and Typhoon.



So much for background. Now let's get down to facts and turn out some models of this fine British fighter. If the following instructions are implicitly followed there is no reason why you can't have a beautiful, fine flying model of which you can be justly proud.

First of all you will be well repaid if you study the plans before starting construction. Take your time and be accurate from start to finish. Construction is all balsa except where noted in .the text, and all dimensions can be determined by placing a ruler on the part in question.

The fuselage is constructed simply by building directly over the plans and the sides are of 3/32" sq. balsa. Form the basic frame by cementing these two sides together, beginning at the rear and working forward using crossbraces also of 3/32" sq. stock. Note also that the large gusset which forms the base for the lower wing is also cut from 3/32" flat stock. This gusset also adds strength to the fuselage at points where landing gear struts ioin. Formers 1, 2 and 3 are side formers (make 2 of each) and A, B, C, D, E and F are for top of fuselage (make 1 each of these). All formers are cut from 1/32" flat stock except A, B, C and 1 which are of 1/16". These are placed as indicated and the 1/32" by 3/32" stringers are cemented in the notches. Add the small vertical gusset near rear of the fuselage and on each side of same. A 3/32 diameter hole is drilled in each of these gussets and a 3/32" diameter hardwood dowel is placed here to act as the rear motor hook.

The cowling is built up of 1/8" sheet disks; the diameter of these disks can easily be obtained by measuring outward from centerline with a ruler or dividers. These disks should be laminated together with a liberal quantity of cement and clamped together and allowed to dry. Note that the second disk from the front is solid except for the 1/4" diameter hole for the nose plug. The nose plug can be of a standard commercial type purchased in most model shops, or it can be built up from sheet stock. The space between the B and C formers is covered with a heavy grade bond paper after the cockpit outline has been cut from same. Now cut the 1/16" length of balsa from the rear vertical of the basic framework. This small portion is removed to allow the horizontal tail planes to be cemented in the position shown on the dotted lines of the side view. When you have gone over the entire fuselage with fine sandpaper, it is finished and ready for covering. You may as well carve and sand the cowl to shape at this time; however, do not cement it to fuselage until the latter has been covered.

Tail surfaces are made next from 1/16" flat balsa. The elevators are of simple design and built directly over the plan on Plate I, as is also the rudder. Width of the various members can be determined with ruler or dividers. Use plenty of cement, and when dry neatly sand both members and streamline the front and trailing edges.

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The wings are built directly over the plans on Plate 3. Leading edges are 3/32" square, and trailing edges are 1/16" by 5/32" as are the spars. Plans are given for the top right wing and the bottom left wing. By studying these plans it will be obvious that the only difference between the two wings is the small cutout in the top wing at the root. Dotted lines are indicated so that complete top and bottom wings may be built directly over the plans. Rib patterns are given; make 20 standard ribs of 1/32" material and 6 of 1/16", using the heavier for the strut ribs and the lighter for the remainder. The root ribs for the top wing are shorter than the rest and must be cut from 1/16" material. The centersection is shown on Plate 2; the outside ribs are of 1/32" material cut from the same pattern as the root ribs in the top wing; the short rib Y is shown by dotted lines on the standard rib pattern. All wing tips are built from small pieces of 1/16" flat balsa. With wings finished the various struts may be cut from 1/16" flat balsa. The interplane struts are of hard balsa and 4 of each are needed. Landing gear struts are best made of 1/16" flat hard wood and 2 of each are needed. Sand all struts to a streamline shape and lay aside. By now, the wings should be dry and ready for sanding. Streamline leading and trailing edges as indicated in crossections of same on the rib patterns; also sand the tips to a neat smooth streamline.

We are now ready to cover the Snipe. The author's friend, Joe Hadsell, learned that a neat covering job can be obtained if care is taken to first lightly sand the entire framework. Also it is essential to have the grain of the tissue running lengthwise of the part being covered. Clear dope is the best adhesive and a very light and neat job can be accomplished with colored tissue. The model illustrated in the accompanying pictures is covered with olive drab tissue, clear doped with the exception of the tail surfaces which were water sprayed to prevent warpage.

The model may now be assembled. Fuselage is propped in place on work-bench so as to be exactly horizontal. Tail surfaces are cemented in place with care so that the elevators are parallel to the thrust line, and the rudder must also parallel the centerline of fuselage. The bottom wings are cemented in place making certain neither positive nor negative incidence is present and that a dihedral angle of 3/8" is allowed. Centersection struts are installed so they rest on the first stringer above the top longeron and splay outward as indicated on the front view. The centersection is cemented between the two halves of the top wing (here again allow 3/8" dihedral), and

when this is dry the entire top wing assembly may be cemented to the center-section struts.

The interplane struts are next cement-ed in positions shown by the small circles on the wing plans (it is best to remove the small bit of tissue where struts attach so they may be joined to the bare balsa). Landing gear struts are attached as indicated and allowed to dry in place securely; while l.g. struts are drying pre-pare the spreader bar shown in the front view from a bit of 1/16" by 1/4" hard-wood. A fine shock absorbing axle can be made as indicated in the front view by filing tiny slots (shown by dotted lines) in the front l.g. strut and by binding the music wire axle in place as indicated in front view. Install wheels which may be purchased in most model shops and bend tips of the axles up to hold wheels in place. Rigging wire (No. 60 black thread) is installed with a small needle. Place insignia as indicated. Sand cowl again and cement in place noting that the bottom rear of the cowl is concave when viewed from side. Portions of three cylinders are carved from soft balsa and cemented in place. Install details such as machine guns, wind-screen, sights and bamboo tail skid and the model will be almost completed.

The author suggests the interplane struts be clear doped to create the impression of antiquated varnished struts. The I.g. struts may be doped a cream color; likewise the cowl. Guns, tail skid, cylinders and inside of the cowl may be doped a dull black. Carve the propeller from a blank of hard balsa 1/2" by 1-1/8" by 6". Install the shaft of music wire after putting the nose plug and several washers on shaft and cement firmly in prop hub. Dope the tires black and wheel disks gray.

The original model flew on three loops of 1/8" flat rubber. Lubricate the rubber with a mixture of green soap and water before installing. Test the complete model by trying a few shoulder high glides into tall grass. Small weights placed in nose or tail will correct any diving or stalling tendencies. Likewise, should the model turn sharply to either side, a slight warping of the rudder will correct this.

If care has been exerted in following these plans and construction notes you may be justly proud of the resulting model. Remember, the Sopwith Snipe was one of the finest of all World War I fighters and as such deserves inclusion in your World War I tarmac. Good luck!

(The author believes a note to him in care of the Editor of M.A.N. will enable us to make available the models you wish to build.)





