

Key to drawing ▶

1. Upper cowling with retaining bands.
2. D-C "Dart" Mk. II engine 0.55 c.c.
3. Extended needle valve.
4. Extended compression screw for contra piston.
5. 8" x 4" "Trucut" airscrew.
6. Elevator control pendulum.
7. Pendulum spindle.
8. Pendulum link and connecting rod.
9. Vickers machine gun.
10. Upper mainplane retaining band.
11. Undercarriage shock absorber.
12. Fin adjustment quadrant.
13. Tube for upper mainplane connecting dowels.
14. Lower mainplane tongue.
15. Upper mainplane runner.
16. A.S.I. pitot head.
17. Interplane strut retaining cord.
18. Tube for fin dowel.
19. Engine bearer.
20. Upper cowling locating lug.
21. Flying wire anchorage.
22. Spur for wheel shock absorbers.

◀ **1/72nd scale details**

A superb one-twelfth scale free-flight model Sopwith Pup

designed for
by Kenneth

THE Sopwith Pup has been described as the "perfect flying machine" and its simple classical lines bear eloquent testimony to its outstanding qualities. During its active career as a fighting scout on the Western Front both in the R.N.A.S. and R.F.C. the Pup proved its worth in a variety of duties.

No less than 1,770 Pups were built and interesting variants included some using skid undercarriages with an arrester hook for early carrier deck operation. Its name was never official and was said to have derived from reference to it as an offspring of the Sopwith 1½ Strutter (which is available as A.P.S. plan CL/651 for a 48 in. aerobatic model, price 7s. 6d.)

Another free flight power model of the Pup to ¼th full size scale, and suitable for 1-1.5 c.c. engine already exists in Plans Service as FSP/305 price 5s. 6d. plus 6d. post.

Sopwith aircraft always have been popular scale model subjects, and this 1/12th scale 26½ in. span version for

the increasingly popular .5 to .8 c.c. engine size fills the APS range admirably. Construction closely follows that of the actual aircraft and Ken McDonough's own cutaway drawing is a grand aid to assembly.

Fuselage side frames are constructed over the plan first and the front three bays then filled in with ¼ in. and 1/16 in. sheet together with the very hard balsa ¼ in. sheet keel pieces with slots for the lower wing tongues. The ¼ in. sq. hardwood engine bearers are next well cemented to the frames. Particular care must be taken to ensure that the bearers are cemented at the correct downthrust angle. Bulkheads 1 and 2 are then laminated from 1/16 in. balsa and 1/16 in. ply. Bulkhead 2 is then notched and cemented over the bearers and trues up the frames while the crosspieces are added. The mounting plate is then cemented to the bearers and secured with countersunk screws. Cement pendulum spindle bearers in place, the Pendulum assembly should now be assembled and installed in the fuselage, the 20 SWG elevator link

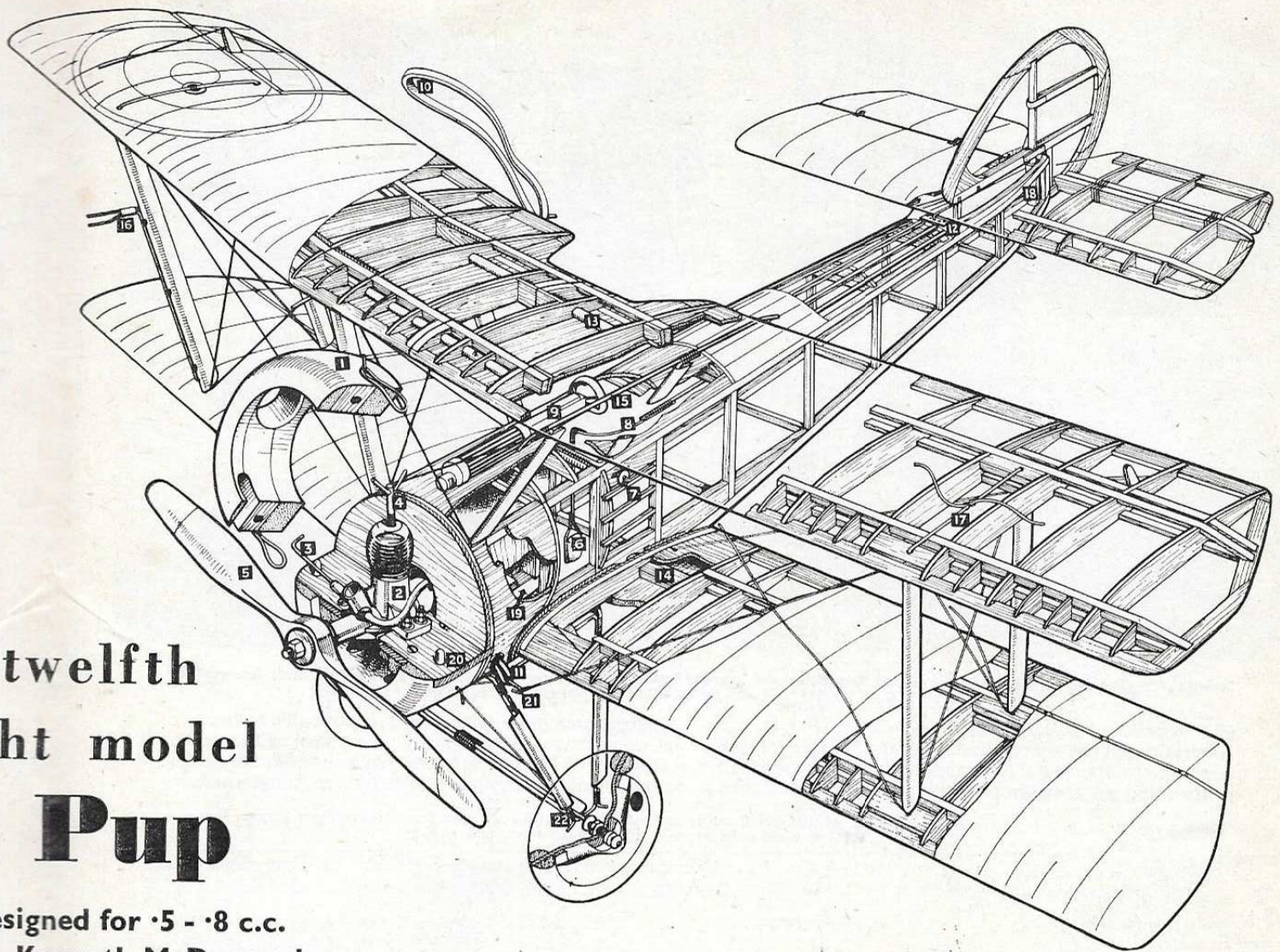
Comparative photographs below, show the McDonough Pup before and after covering. Construction closely follows that on the full size machine as can be seen by study of the 1/72nd scale drawing above. Elevators are specially drooped for realism in the photograph—are pendulum controlled on this 26½ inch span model



ele-twelfth ight model h Pup

designed for .5 - .8 c.c.

by Kenneth McDonough (who also painted the cover)



should be bound only to the bamboo connecting rod at this stage and adjusted fore and aft before permanently cementing when the airframe is complete. The addition of formers c/s struts, stringers, undercarriage tubes and sheet balsa fairings completes the fuselage. Metal cowlings cut from light alloy, 20 cigarette tins and attached in the appropriate locations with impact or contact adhesive give an authentic touch.

The mainplanes are quite orthodox but hard balsa must be used for the leading edges and the front main-spars of the lower wings.

Keep the tail unit as light as possible, the tailplane is made integral with the elevators. These are separated after assembly and secured to the tailplane with linen thread after covering. The undercarriage chassis frame is carefully soldered and faired with hard balsa. Paper tube for the shock absorbing rubber bands should be at least 3/16 in. dia. to allow for quick replacements.

The entire airframe is covered with heavyweight tissue—lightweight can be used on the empennage if desired.

Trim for the glide, the model is very responsive to any rudder adjustment. Proceed carefully with powered glides ensuring that the model always turns to the left.

(continued on page 86)

Nose detail reveals the Davies-Charlton Dart diesel fitted to the Pup prototype model. Extension compression screw interferes with the machine gun,—a small concession to realism! Note the large, scale diameter prop and the way in which the detachable upper cowl half pegs into correct position

