Winning model at the 1956 "Stockport Express" Rally—

De Havilland 83

FOX MOTH

a free-flight scale model for .5 - .8 c.c. by B. BARTON

IT IS RATHER surprising that there are so few examples of this most economic light transport flying in the world today.

Using only enlarged fuselage proportions with more or less standard D.H. 82 Tiger Moth wing and tailplane units, the Fox Moth served a useful life with small airlines, charter companies and air circuses in pre-war years. G-ABVK which is chosen for Bernard Barton's model, was finished in two tones of blue for Hillman's Air Services operating out of Stapleford Tawney Aerodrome in Essex, whilst another colour scheme on G-ACEJ giving pleasure flights at Southport last year, inspired Mr. Barton to make a 30 in. scale model for his Mills ·75 diesel. This was all silver with cream decking on the fuselage, registration letters in dark blue, and distinguished by not having a spinner. Unfortunately, G-ACEJ no longer exists as it crashed into the sea and was a total wreck.

Now for the model, two basic fuselage sides are cut from 1/16 in. medium sheet. Mark cabin windows on the outsides, but *do not* cut them out at this stage. Mark positions of formers on inside of each half, all formers are cut from 1/16 in. medium sheet except formers F 1 and F 2 which are 1/16 in. ply. Cement formers F 3, 4, 5 in position, using a square as shown in sketch and ensuring that the tail ends will meet correctly—cement formers F 2, 6, 7 in position when dry. Then cement tailpost in position (undercarriage wire is sewn to F 2 before assembly).

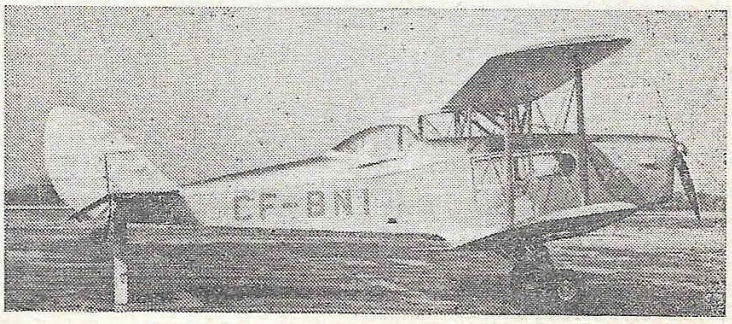
Carve noseblock to profile from 2¼ x 1¾ x 1 in. block balsa with rebated grooves to take fuselage sides and engine bearers. The engine bearers, noseblock and F 1 are now cemented in position. Cabane struts are cemented to formers 2 and 3 with silk patches. Cement backbone in position and cover top of fuselage with 1/16 in. medium sheet, one piece each side from F 4 to former F 1, add ½ in. x ⅛ in. doublers between F 2 and F 3, paint inside of cockpit and cabin light green. The cabin floor can be painted when the windows are cut out after top planking is completed. Cement 18 s.w.g. wire hook to F 1 and 18 s.w.g. wire in position for undercarriage legs, cover bottom of fuselage with 1/16 in. sheet from F 2 to tail in one piece, plank bottom with ½ in. x 1/16 in. strips from F 1 to F 2, add ⅛ in. sheet balsa tailplane platform.

Finish carving the noseblock, noting the offset intake hole, cover bottom of cowling with 1/16 in. sheet back to overlap on F 1. The curved cowling sides which are 1/32 sheet should overlap the basic sides. Top cover of cowling is carved from block balsa 4½ x 2¾ x 1 in. The cockpit can now be opened up, blisters fitted to passenger's doors and oil tank to cowling side.

Wings are of straightforward construction—lay down the bottom spar leading edge and trailing edge over the plan, cement ribs in position, then add tips and top spar, cover with heavy grade tissue, remove as many wrinkles as possible, tighten with clear dope, *do not water shrink* in an effort to avoid warps on this narrow chord structure.

Flying

The model should be trimmed for first test flights with the rudder lightly cemented to the tailplane, the assembly being held to the fuselage by rubber bands to allow any adjustment required prior to permanent attachments. The rudder can be warped if necessary with a little heat after model is completed and the original was trimmed to fly in left hand power and left hand glide circles.



Enclosed cockpit on Canadian version of full size can make use of commercial bubble canopy. Colour scheme is apparently silver with red lettering and nose cowl, note bulged passenger cabin door in this view