Build the plane on the cover !

Stability was a main feature of the full-size

B.E.2E

so is it with this 40 3/4 inch super-detailed flying famous biplane by cover artist Kenneth McDonough

• 1/12th scale • for ·75cc (or ·049 cu. in.) • Knock-off wings • Easy to build

OF ALL THE B.E.'S, the B.E.2E was the most prolific yet, strangely enough, it is one of the least well known. Virtually defenceless in combat, it was the cause of many casualties but numbers were still in service until the close of hostilities. Drawings on pages 72/73 give extensive information on the full-size aircraft and provide supplementary detail for the 1/12th flying scale model presented here, and should be sufficient to fully satisfy the most rabid of W.W.I. scale fans. With its generous wing area, simple box-like fuselage and square cut tips, it becomes an ideal flying scale subject—remember, a B.E.2C won the Nationals scale event last year! Building Kenneth McDonough's design should be within the capabilities of any modeller with experience of at least one power model, and the extensively detailed A.P.S. drawing covers all possible queries. The following notes summarise the sequence of assembly.

Construct fuselage side frames over the plan, using medium hard balsa for the longerons, incorporating side keels of hard balsa. Join the side frames with two main bulkheads F.3, F.4 then add the 3/16 in. ply engine mounting. Fit all cross members and fill in triangular nose bays with 1/8 in. sheet. Bind and cement centre section struts and solder spreaders and runners in place, it is essential that these struts are cross-braced with 20 s.w.g. wire since the completed cabane takes all load of the upper mainplanes when at rest. Make the turtle-deck of 1/16 in. sheet, add formers, stringers and remaining components, u/c tubes, 1/8 in. sheet stern pieces and fin tube, skid pylon, etc.

The tailplane fin and rudder are made over the plan. Add cap strips, 20 s.w.g. wire prong and 1/16 in. dia. bamboo fin dowel. Ensure that key piece is true so that the tailplane is square with fuselage.

Tyres are made from 2 in. diameter air wheels and sandwiched between 1/16 in. ply discs. Secure with 10 B.A. bolts to prevent the discs buckling. Solder the u/c chassis frame and streamline it with hard balsa. When making the wings, ribs should slide easily on to spars, check spars for warps. False ribs are added after the panels have been removed from the plan. Note that dihedral is obtained by angling the boxes, therefore, the mainplanes should be supported at correct dihedral angle with tongues and boxes in place before cement has dried. When correct dihedral angle is achieved, secure permanently by filleting boxes to adjacent ribs with cement.

Cover the entire airframe with heavyweight tissue, lightly waterspray and follow with two coats of thinned clear dope before camouflaging. One coat of Brushing Belco gives a scale khaki, diesel fuel proof finish. Glide tests should be conducted in flat calm over long grass or heather. Check the glide as flat and straight. This aeroplane needs no right sidethrust as there is negligible torque or gyroscopic reaction. Directional trim is obtained on the rudder only, or by offsetting the engine if this is preferred. No downthrust is needed under calm weather conditions and the flight pattern is amazingly realistic.

Now get going and order your plan—there's plenty of time to build one before the '59 Nationals!

Realism in these two views of the B.E.2E model prototype emphasises the authenticity of this excellent scale design