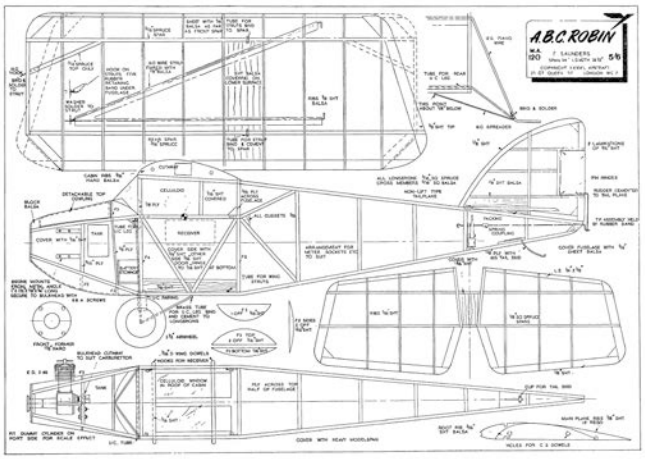
ABC Robin



A Scale Model for Radio Control by F.C. Saunders.

The A.B.C. Robin built by A.B.C. Motors around about 1929-30, was a midget single- seater cabin monoplane of just over 25 ft. span, and was powered by an A.B.C. 35 h.p. Scorpion horizontally opposed twin motor.

The construction is very simple and should not prove difficult. It has a simple slab-sided fuselage built up with 3/16 in. sq. spruce or birch longerons with 3/16 in. sq. hard balsa uprights and cross members, etc. It was found necessary to steam the longerons to obtain the curve from the bottom of the cabin to the nose. First build the side-frames on the drawing, making sure that all gussets, etc. are fitted, then remove the two sides from the drawing and fit the cross-pieces, starting at the cabin, and working back to the tail and then forward to the nose. (Remember that the top cross-member at the rear of the cabin is 3 ply and extends downward to the center longeron.) After building the basic framework, undercarriage and wing strut tubes should be added, followed by the hooks for the receiver, battery box and all wiring. The 1/16 in. sheet on one side of the cabin should be added at this stage so that the switches, etc. can be fitted. Finally fit the motor bulkhead and the motor, followed by the nose formers, and last by 1/16 in. sheet covering.

Wings: The wings are quite simple and there should not be any difficulty here. The spars are of 3/16 in. sq. spruce and the ribs of 1/8 in. balsa, with hard balsa leading and trailing edges. The tubes for the wing struts should be bound with wire to the spars and soldered, as are the wing retaining hooks, the leading edge is sheeted with 1/16 in. sheet balsa back to the main spars.

The center section of the wing is built direct into the fuselage and is not detachable, the wings being located with 3/16 in. dowels. The wing retaining hooks pass through the center section ribs where they are cut away, and are held with rubber bands, passing between the two so that the wing fitting is all internal.

The wing struts are of 16 gauge piano ware faired with 1/8 in. balsa, and these plug into the tubes in the wings and then into the one in the fuselage, and are held in by rubber bands passing over the wing strut hooks and below the fuselage. The wing struts take all flying loads and leave the wings free to knock off in the event of a wing tip landing or on hitting an obstruction.

Tailplane and Rudder: The tailplane and rudder are quite straightforward with spruce main spars, and are of the flat plate type. The center section of the tailplane is sheeted with 1/16 in. sheet between the main spars, the forward part from the leading edge to the front spar sitting either side of the fuselage when fitted. The rudder is glued to the tailplane and the whole assembly held to the fuselage by rubber bands,

The Undercarriage: The undercarriage is built from 12 s.w.g. and is built-in solid with the fuselage with the exception of the 16 gauge spreader bar which is left free where it passes below' the fuselage.

Covering: The original model was covered with heavy Modelspan and given two coats of clear dope and one of coloured. The colour scheme used was as on the original machine, viz. silver nose, black fuselage, and orange wings, tailplane and rudder. Registration

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letters were orange on fuselage and black on wings with a black " G " on the rudder.

The engine was an E.D. 3.46 mounted on its side, with a dummy cylinder on the opposite side to give the appearance of the original motor.

The radio fitted was the E.C.C. 950 receiver and the old type actuator, and complete with batteries and all equipment the model weighed 3 lb. 9 oz.

Flying: The original flew straight off the board with no additional trim necessary. The glide is quite flat, and under power the model is fast and very responsive to control. It has been found that very little rudder movement is necessary for normal flight.

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