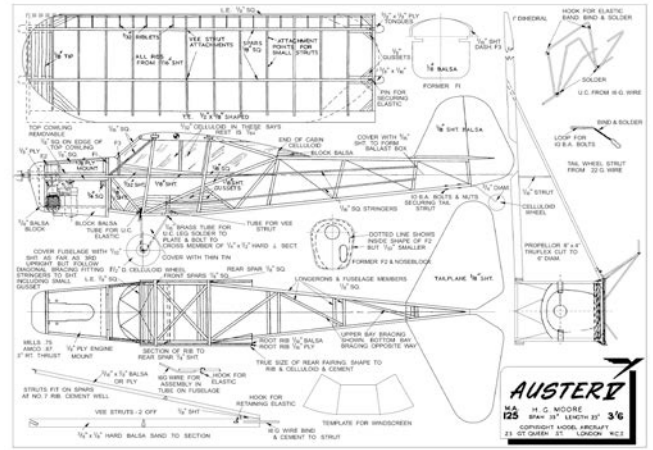


Auster V



A Free Flight Scale Model by H.G. Moore.

One of the most popular light airplanes at present in use in this country, the Auster, is a "natural" for a rugged and stable flying scale model. Slab-sided fuselage and parallel-chord wings make construction simple, and inverted engines are readily installed in the deep cowling.

Fuselage and Center section: Build up the two side frames on top of one another on the plan. Fit in the 1/8 in. sq. uprights for the cabin and cement the top longeron in place, cutting it to fit between the cabin uprights, then add the remaining uprights and complete the rear cabin frame. Before removing the sides from the plan, fit the 1/8 sheet gussets around the U/C fixing. Fit the cross-spacers as on the plan view, working from nose to tail, adding the center section spars and leading edge and the diagonal fuselage bracing.

Cement the undercarriage tee-section across the fuselage and finish off the cabin except for the windscreen W struts. Assemble the balsa-and-ply root ribs, cut out the wing-tongue slots and cement the ribs in place, taking care to get the incidence correct.

Cut the formers from 1/8 in. hard sheet, cement F1 in place and leave to harden. Cut out the ply motor mount with tabs to fit the slots in F1. Cement it squarely in position and add the 1/4 in. sq. cross support. When dry, cement the lower half of nose former F2 to the front of the motor mount. Carve the block for the bottom of the cowling, stepping the edges for eventual sheeting. Cement it into place between F2 and F1 and also cement the 1/8 sq. on the

top edges of the mount. Construct the removable top cowling between F1A and the top half of F2 with 1/8 sq. edges and a 1/8 sq. stringer centrally along the top.

The fuselage should now be planked with 1/32 in. sheet as far back as the third upright, and the top cowling sheeted with strips of 1/32 X 3/8. Fit the W bracing for the windscreen and add the fuselage stringers. With 1/8 sq. make the window frames and the cross-bracing between the center section spars, and then sheet in the ballast box at the rear of the fuselage. Make up the celluloid cabin and cement in place the block fairing the rear of it into the fuselage. Finally, complete the details of the undercarriage fittings and fit the aluminium tubes for the strut fixing points, carve and fit the nose-block.

Wings: These are quite straightforward and all the ribs are traced from the side view. Cut out the tongue slots in the first and second ribs. After notching it to receive the ribs, pin down on the plan the T.E., then the lower spars. Cement the ribs and the L.E. in position, followed by the top spar and lastly the riblets. Note that the lower surface of the wingtip slopes to meet the upper. Cement the wing tongues in place and when dry fit the bracing struts with the wing in place on the fuselage, cementing the struts firmly to the spars.

Tail Unit: The tail-plane is cut from one piece of 1/8 in. hard sheet, the fin cemented to it and the unit secured to the fuselage with rubber bands.

Undercarriage: The two legs are made up from one length of 16 g. wire, the front member continuing

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across the fuselage. The axles also form the bracing struts (see front view).

Finishing: After sanding, cover the fuselage with heavyweight tissue, the wings, tail and struts with lightweight. Give the whole model one coat of clear and one of coloured dope. A suggested colour scheme in cream with a red fuselage flash. Dope the inside of the cowling and fuel-proof the whole model.

Flying: An 8x4 Truflex propeller cut to 6 in. diameter was used on the prototype. Add weight to the ballast box until the model balances at a point one-third of the wing chord from the leading edge. Pack up the rear of the engine bearers 1/16 in. for down-thrust and offset 3 deg. to the right. Test glide over long grass until a long flat glide is obtained, then launch powered flights dead into wind, when the model should circle to the left under power, and glide in wide circles to the right.

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