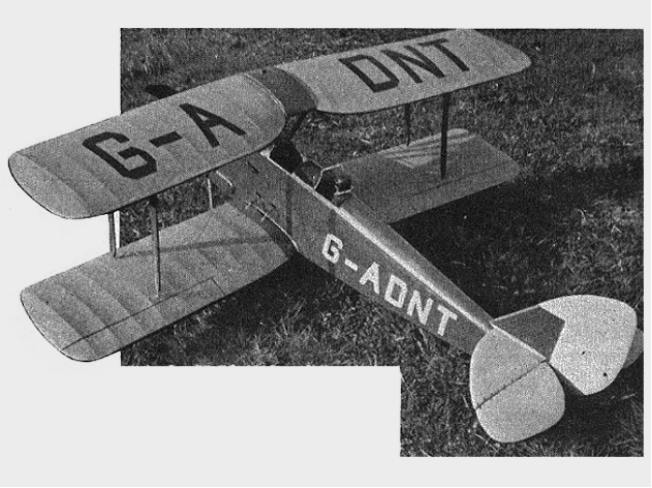
Tiger Moth



A C/L Tiger Moth for 1.5 – 2.5 c.c. engines by Frank Buckland.

Here's your chance to fly a " Tiggie " to have your hand at the controls of this much loved little biplane. Although it is a model, it's as tough and stouthearted as its famous original.

Fuselage and Tailplane: Start by cutting out all the formers, cut a hole in C for the stunt tank, and when this is correctly positioned glue the bearers to formers B, C, and D, having fist drilled the holes for the undercarriage fixing bolts.

Build the basic 3/16 in. sq. fuselage and cement it to the front former assembly, then add the control plate mounting of 3/8 in. sq. hardwood, and fit the control plate and pushrod in place. Bend and solder the undercarriage to shape and fix it to the ply formers with tin straps. Fill in the spaces between the first three formers, and back to the rear of the cockpit line, with 1/8 in. balsa, making sure that this is a flush fit with the outside of the fuselage.

Cement the top formers in place and add the 1/16 in. sheet decking, then when this is dry the cockpits may be cut out. Fix the tail skid very securely to the tail post which is of hard balsa well cemented and gusseted to the longerons. Shape the tailplane support from soft block and cut a slot in the forward end to take the fin tongue, then cement in position.

Make the tailplane from two layers of 3/32 in. sheet, with hinges and control horn sandwiched between, cut and sand to section and mount on fuselage. Connect up pushrod and make sure that the elevator movement is satisfactory. Cut the fin and rudder from 3/16 in. sheet, sand to finished shape, and cement in place, noting how the fin slots through tailplane and into the soft block.

Make the top wing center section as shown on the plan, and stitch the cabane structure carefully in position on the 1/16 in. rib pieces. When satisfied with the accuracy of the unit, screw the bottom ends of the struts to the bearers with small wood screws, after first cutting away a small portion of the 1/16 in. sheet decking at each fixing point. Fair-in later with plastic wood over the screw heads.

Cement a 3/32 in. square " appearance " stringer along each side of the fuselage on top of the existing framework: add cockpit floors and the soft balsa crash pads. Sand the fuselage smooth after cutting a slot in the bottom to take the lower wing mainspar. The imitation oil lank of soft balsa can then be added.

After thoroughly fuel proofing the engine compartment mount the engine in place using " U " bolts if possible, and fit the nose former and block.

The cowlings are made from thin aluminium, and the easiest way to ensure a good fit is with the aid of thin card templates which are carefullv cut to shape by trial and error. From these the metal cowlings can then be cut. Be sure to allow the bottom cowling to bell out at the rear for engine exhaust and scale appearance. The cowlings are held in place with wood screws.

Wings: Construction is straightforward and the wings can be built over the plan in the usual way, but be sure to angle the root ribs correctly to allow for the dihedral.

When the halves are dry offer lower wings to the fuselage having first placed the retaining balsa block in position. Using plenty of cement, slide each wing half through the fuselage slot making sure of a good snug fit to the retaining block. Small wedges should be placed between the spars and former D. Work quickly while the cement is still soft and pin the wings securely and accurately into position, blocking up the tips if necessary. Once you are satisfied that all is as accurate as possible, leave until the cement is

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thoroughly set. Cut out the 1/16 in. ply braces for the top wings, and these arc then fitted into the slots in the wing tank in the same way as for the lower wings.

The interplane struts can be slotted and glued into position to help support the top wings while the cement is setting.

Fill in the underside of the fuselage, from the firewall to the wing trailing edge with 3/32 in. sheet fitted flush with the bottom longerons. Add the lead-out guide to the port struts and fair off all struts as shown on plan. Cover top and bottom of the wing tank with 1/16 in. sheet, and fix the scrap balsa filler cap.

Finishing: Cover the entire model with heavyweight Modelspan and build up a good finish in the usual way with sanding scaler and thin dope. Before applying the final coats of dope to the fuselage fit the celluloid windscreens. Colour schemes, both civil and R.A.F., are numerous but the original model was dark purple with yellow flying surfaces and white letters—the colours of the Bristol Airplane R.F.T.S. in 1937 a' Yatesbury.

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