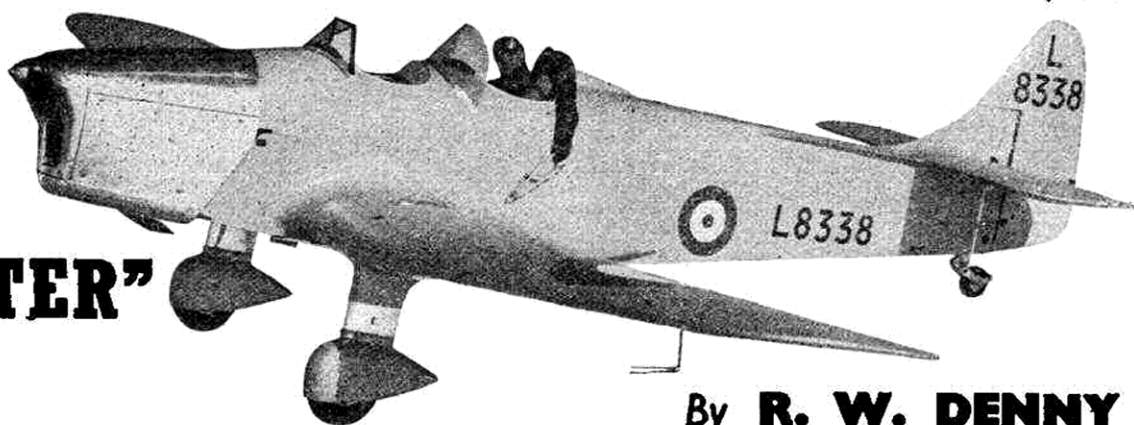


BUILD THIS  
34 in. SPAN

# MILES "MAGISTER"

THE POPULAR  
BRITISH TRAINER



By **R. W. DENNY**

**T**HIS model of the well-known British training machine should be a welcome addition to any collection of flying scale models. The original has an exceptional performance, and the detailed plans should enable successful replicas to be easily produced. Details of the prototype are:—

**Purpose:** Two-seater elementary trainer. Built to Specification T 40/36.

**Origin and Development:** Prototype appeared in 1937. The design generally followed the lines of the earlier Hawk series. Production machines delivered in 1938 to E. and R.F.T. Schools to supplement D.H. Tiger Moths and Blackburn B.2s, etc.

**Dimensions:** Span, 33 ft. 10 in. Length, 24 ft. 0 in. Height, 6 ft. 6 in.

**Performance (Gipsy motor):** Maximum speed, 142 m.p.h. at 1,000 ft. Cruising, 124 m.p.h. Landing speed, 45 m.p.h. Initial climb, 850 ft./min. Service ceiling, 18,000 ft. Absolute ceiling, 20,000 ft. Range, 380 miles.

The model is to scale, except the tail surfaces and propeller, which are slightly enlarged for flying purposes. Also, such small things as the pitot head have been omitted and no control surfaces used, since they so readily get out of trim.

### Fuselage.

This is built in the way common to all aero-modellers, which is to use two master stringers. In this case they are about  $\frac{3}{8}$  in. wide by  $\frac{1}{4}$  in. thick. The curved parts against the nose must be cut from sheet balsa, and the straight parts can be of  $\frac{1}{8}$  in. by  $\frac{1}{4}$  in. strip. The other stringers are  $\frac{1}{4}$  in. square. (At this point I think I ought to tell you not to fix the stern-post until you have got the tail-plane in place.)

I also found that it looked very realistic to cement string round the cockpits to represent the padding. The nose is also covered with  $\frac{1}{4}$  in. sheet up to the line shown.

### Main-plane.

This is built in an ordinary manner. The main spar should be cut from  $\frac{1}{4}$  in. sheet and the leading edge should be  $\frac{1}{4}$  in. square, tapered towards the tip.

### Tail-plane and Fin.

The outline of the fin is cut from  $\frac{1}{4}$  in. sheet and the ribs are strips of  $\frac{1}{4}$  in. by  $\frac{1}{8}$  in. bent to shape, shown on the plan.

The spars of these are cut from  $\frac{1}{4}$  in. sheet. They are purposely left hefty because nearly all my troubles have been from a broken spar.

### Centre Section.

This should be built on to the fuselage, because if you make it and then try to attach it you will find it impossible. I would suggest making one half and then finish the spar L.E. and T.E. through the fuselage, and lastly fix on the remaining ribs. The paper tubes can now be glued in place, which should take the dowels with a tightish fit. I found that no rubber bands were necessary to keep the wings in place.

### Undercart.

This was made, as shown on the plan, for strength. All I need say I think is that the elastic band should be a good strong—and well lubricated—one, and also that it should be a tight fit. The band fits over a balsa hook, as shown on the main spar.

### Propeller Power, etc.

The propeller should be 9 in. in diameter, and I also recommend it to be a Howood or a Paulonia one with the spinner added afterwards.

The shaft is of 18 s.w.g. wire and the bush should be the right size to take it. The rear hook is a piece of  $\frac{1}{4}$  in. by  $\frac{1}{4}$  in. bamboo. The distance between the hooks is approximately 18 in., and the rubber consists of  $\frac{1}{4}$  in. by  $\frac{1}{30}$  in. strip, made up into six 2 ft. strands.

### Covering and Flying.

The model should be covered in the usual way and the fuselage is covered in strips. The 'plane should be yellow all over, with black markings (controls and lettering). If it is preferred the 'plane can be camouflaged on top.

The model should be wound up with a hook bent round the propeller.

I don't think it at all necessary to tell you how to fly it since this information can be found in nearly every issue of THE AERO-MODELLER. I should, however, like to add that it can be flown in very strong winds.

When you have built this scale model, you will undoubtedly wish to build other types, and we recommend you to the list of scale and other types listed in our latest catalogue, obtainable free from any model shop.

There is nothing so fine looking as a large scale flying model, and more and more modellers are devoting their energies to this branch of the hobby. Complementary to the 'Albacore' shown on pages 671-675, we have such 'class' models as the 'Lysander,' 'Spencer Larsen,' 'Airspeed Envoy,' 'Miles Kestrel,' etc., and this collection is constantly being supplemented. Send now for some of these fully detailed working drawings,—and don't forget the special coupons, on the back cover page, which entitle you to a cash rebate.