

**Fred  
Hempsall's  
9 year old  
60-inch span  
Sport Model  
re-designed  
and re-issued  
in A.P.S. for  
radio flying  
As built by  
R. GARMAN**



BLACK MAGIC was first published in the September, 1947, "AEROMODELLER" and has been a firm favourite of thousands of sport fliers ever since. Good looks, clean lines and snappy reliable performance have accounted for its success.

Reader R. Garman, searching for a suitable radio control design for his E.D. 246, decided Black Magic had definite possibilities and wrote to the Editor regarding structural modifications. It was decided to strengthen the mainplane anchorage, the fuselage cabin structure and the wing tips. The fin area was increased and the original knock-off plate type engine mount replaced with an adaptable ply plate on bearers, which will accommodate varying sizes of motor. Mr. Garman still favours the old type mounting, however, and says it has saved his crankcase on several occasions, so we leave this particular design feature to the choice of the individual builder.

The new drawing shows installation for the normal battery sizes, e.g., B122 or B123 for H/T and U12 for L/T, etc. Mr. Garman, however, uses a set with fairly heavy current consumption and therefore employs heavier batteries. He uses a B101 Batterymax for H/T, a U2 for L/T and a 1239 for actuator, which total 1 lb. 2½ oz. in weight. The B101 lies on the floor between the rear undercarriage wire and a ½-inch square block with ⅛-inch dowel let in for rubber band anchorage stretched between undercarriage wire and the dowel. His U2 battery also lies on the floor immediately to the rear of the B101 and the escapement battery goes in the compartment between F.2 and F.3.

Those people who have flown radio models extensively will appreciate another suggestion by Mr. Garman. Instead of leaving the rear undercarriage legs as one complete length of wire he cuts it through the centre, taps the two ends 4 B A and joins them by means of a 4 B A sleeve. This

enables the undercarriage to be replaced when necessary without disturbing the structure. Those people without taps and dies could easily solder a copper sleeve over the two ends, which would do the job just as usefully.

Another scheme would be to insert a hardwood block between formers F2 and F3 at the bottom of the fuselage and attach by means of bolts inserted in the block, a 14-gauge strip dural one-piece undercarriage.

This provides an easily removable unit which can be replaced when necessary and is a popular method in America particularly with radio control kit models such as the Trixter Beam and Live Wire series.

### **Suitable for 1.5c.c. to 2.5c.c. motors**

*View of fuselage on right shows there is ample "getatability", with access to radiocompartment through cabin roof and side hatch. A sorbo pad on the underside of the centre section protects the valve, and a similar pad beneath the receiver ensures a firm yet resilient mounting*

