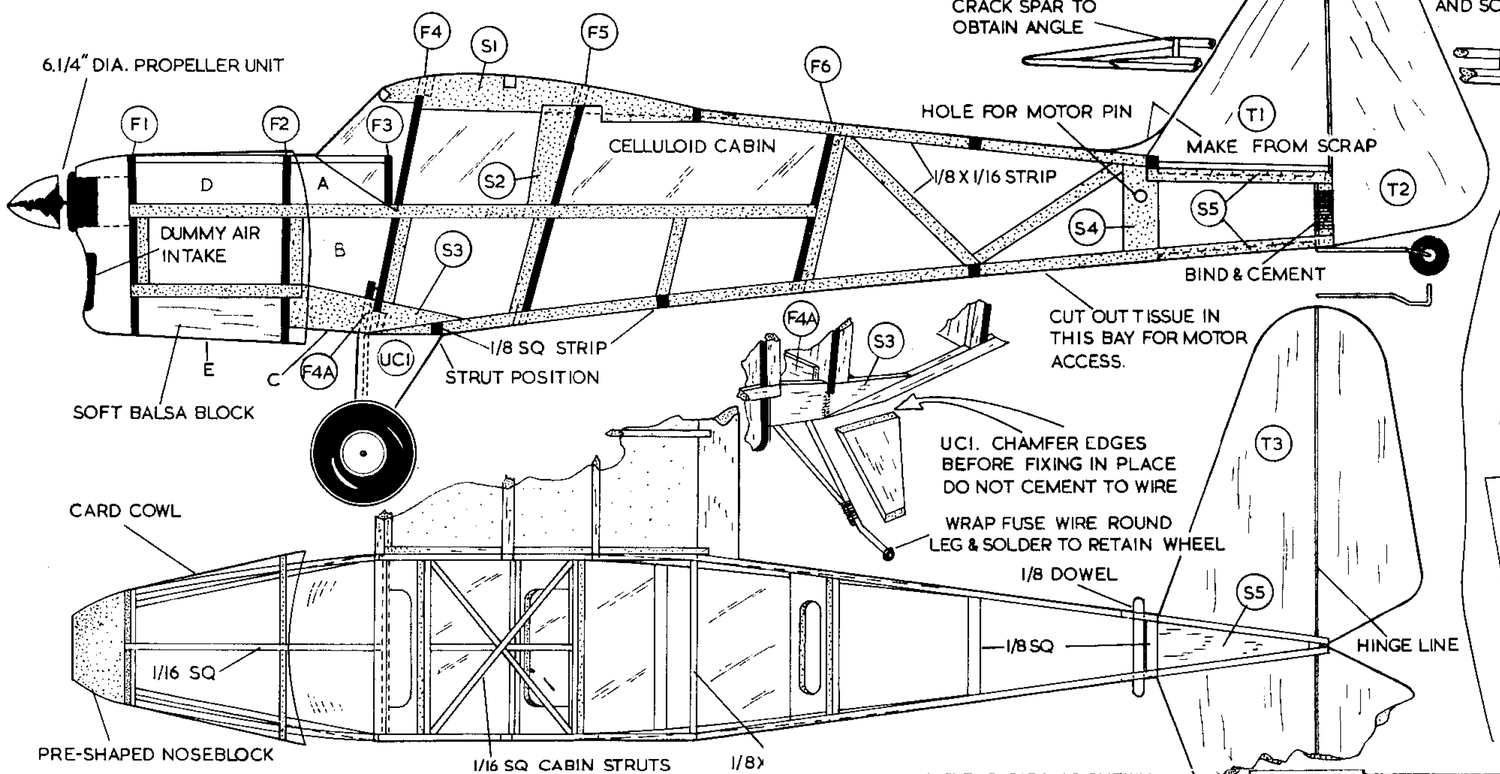
FROG TRADE MARK

DE-LUXE SCALE SERIES
AUSTER

21" SPAN
RUBBER MODEL
CAT No 734 FK

DESIGNED & DRAWN BY Bill Knox & L. Green.



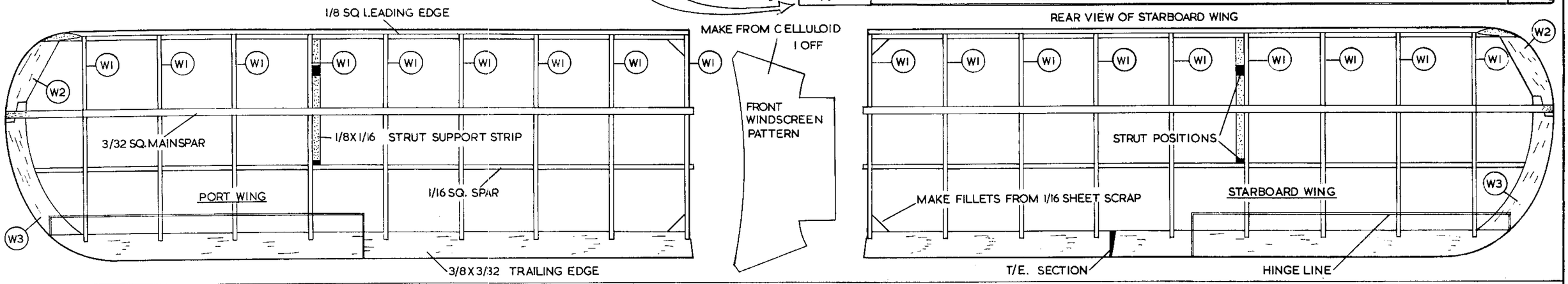


FIG 1 FUSELAGE CONSTRUCTION

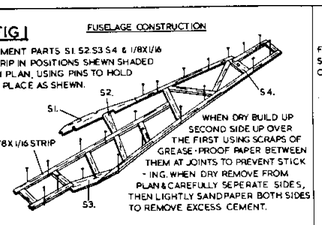


FIG 2. CEMENT 3/16 X 1/16 STRIP TO FORMERS F4 & F5 THEN CEMENT TO FUSELAGE SIDES IN POSITIONS SHEWN ON THE SIDE VIEW OF PLAN

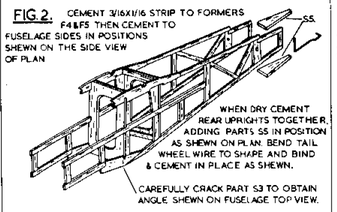


FIG.3. NEXT CEMENT FORMERS F2, F3 & F1 IN PLACE HOLDING SIDES TOGETHER WITH ELASTIC BANDS UNTIL SET. THEN ADD 1/16 SQ NOSE STRINGER AND CABIN STRUTS AS SHEWN ON PLAN VIEW.

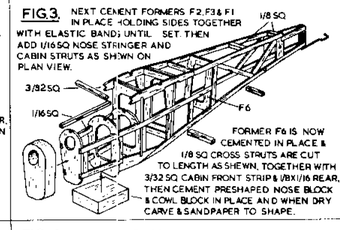


FIG 4 NOSE COWL

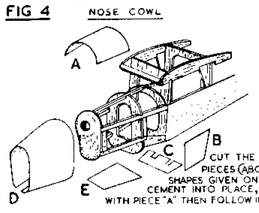


FIG 5 COVER FUSELAGE WITH TISSUE, EXCEPT WHERE CABIN WINDOWS FIT. CUT WINDOWS TO SHAPE & FIX THEM IN PLACE WITH CEMENT

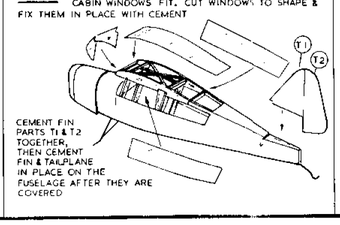
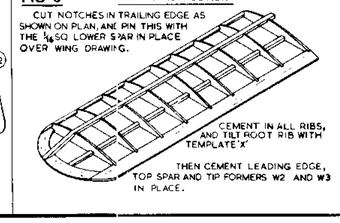
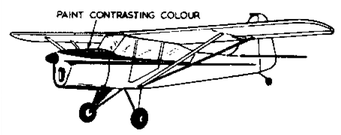


FIG 6 WING CONSTRUCTION



COMPLETED MODEL



INTRODUCTION

This Model is one of the FROG DE-LUXE SERIES which consists of a range of Models representing popular full-size aircraft.

To ensure a satisfactory job, carefully study the plan and check the parts with it before cementing them together. As with other Frog Models most of the parts are supplied ready cut to shape for easy assembly. Cement and dope are not included in this Kit, but they can be bought at any Model Shop. Use quick-drying balsa cement such as FROG UNIVERSAL; you will also need a sharp balsa knife or single edge razor blade and a few pins.

BUILDING

Build up the fuselage sides and wings over the plan, following the sequence of construction given in the sketches; lay a sheet of greaseproof paper over the plan to prevent the cement sticking. Bend the wire undercarriage parts to the shapes shown on plan; well-cement the main under-carriage legs against bulkhead F4 then cement piece F4A over it and against the sides to secure it. Carefully sandpaper the balsa wood structure before covering with tissue. The wings and tailplane should be cemented to the fuselage after covering.

COVERING

Cover the Model with the tissue supplied using office paste or clear dope as an adhesive.

Cut the tissue to approximate shape leaving a 3/8 in. margin all round. Apply adhesive to underside edges of wing then lay the tissue over it and pull gently all round. Do not attempt to get it drumtight, but aim at getting an even surface, with no deep wrinkles. When dry trim off excess and cover the top side.

Cover fin and tailplane, applying adhesive to edges and pulling tissue over and trimming off excess. Before applying clear dope, lightly spray the fuselage and wing with water, then pin down wing on a flat board to prevent warping. When thoroughly dry apply a thin coat of clear shrinking dope to each part, pinning wing, tailplane and fin down on to a flat board covered with grease-proof paper to prevent sticking. When dry give fuselage two more thin coats of dope and the wing one. (If Model is to be used for flying do not use colour dope unless sprayed on thinly.)

SOLDERING

Clean parts to be soldered with glasspaper, then apply flux to parts to be joined. Heat up soldering iron and clean tip with file; dip in small container of flux and apply solder on to end of iron, then apply iron to joint until solder flows round it. When set wipe off excess flux to prevent rusting.

MOTOR

This is composed of two 9 in. elastic bands which are supplied. Lubricate them with Frog Rubber Lubricant or Castor Oil, and insert them into the fuselage with the help of a length of wire or thread. Bend a hook at one end of the wire and insert it into the front end of the fuselage. (If a thread is being used, tie a weight to one end and drop it through.) Hook the bands on to it through the opening at the rear and insert the rear motor pin (cane) through the holes in the fuselage and through the loops of elastic. Pull the bands out through the front, and hook them on to the airscrew shaft (complete with Airscrew). The model is now complete and ready for flying. A drop of thin oil on the airscrew shaft will improve the running.

FLYING

This model is intended to be flown out of doors, but choose a very calm day for your first test.

The model should balance level when held on the fingertips at the main spar position on wing. Small pieces of plasticine should be added to nose or tail until the balance is correct.

Test glide the model to check the balance. Hand launch it in a slight downward direction. If it dives, add weight to the rear of fuselage, and if it climbs sharply and drops back on tail (this is called stalling) add weight to the nose.

When the glide seems satisfactory put a few turns on the motor and launch the model into wind (if any). The turn can be adjusted by bending the fin. Increase the turns on the motor gradually, up to a maximum of approximately 300; if the motor is not lubricated, the turns must be limited to 150. An unlubricated motor will wear and break very quickly. Stretching the elastic while winding will enable more turns to be obtained.

If model stalls under power, cement a thin strip of balsa between top of nose plug and nose block, to cause a downward thrust of the propeller.

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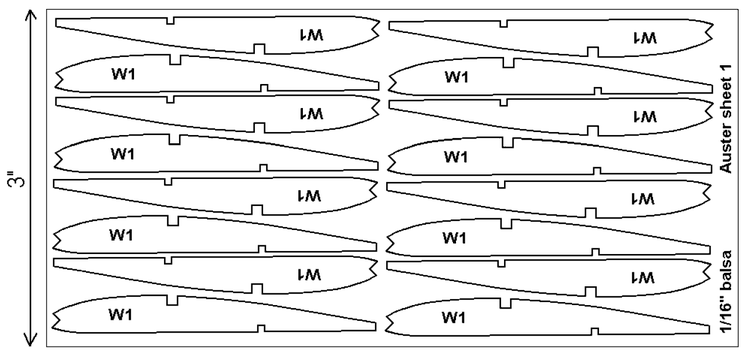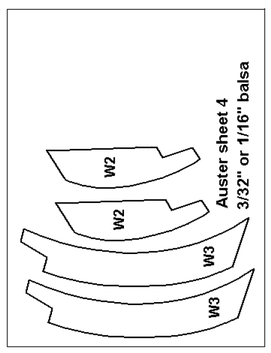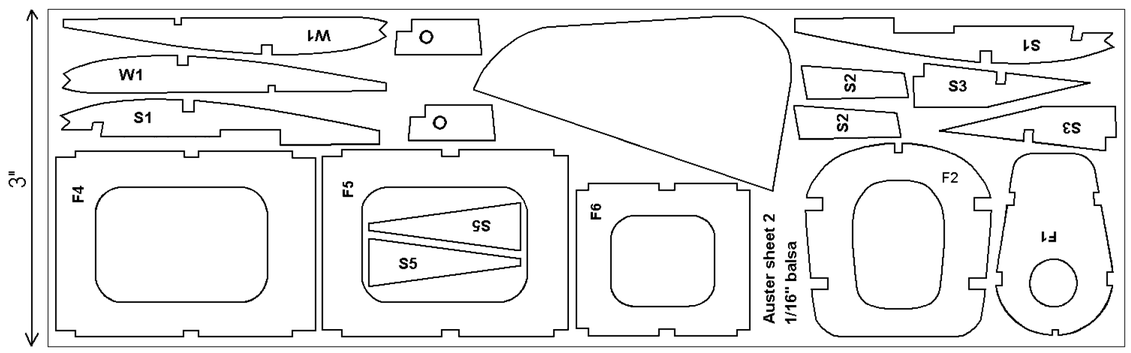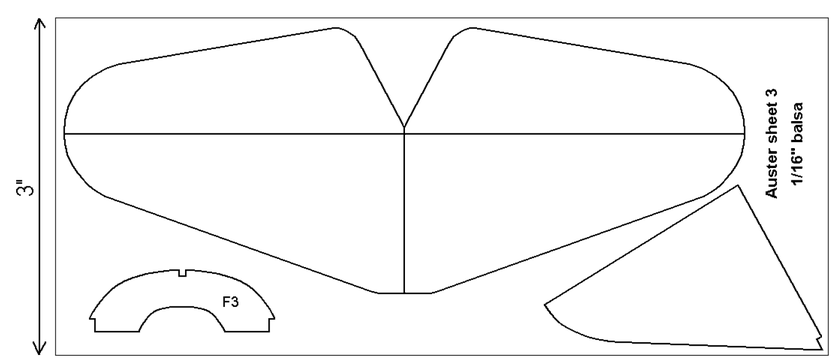
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