HUSTLER

1500mm WINGSPAN RADIO CONTROL MODEL

FOR ·35 TO ·45 ENGINES

THE GREATEST NAME IN MODEL AIRCRAFT

KIT No. 124

THIS KIT CONTAINS

GRADE AAA BALSAWOOD

EXCLUSIVE TO AERO-FLYTE

STEP THREE FUSELAGE

The remainder of the fuselage should be assembled with C23 cement which is fast drying and immensely strong. Stand the fuselage sides vertically on a flat surface and cement the plywood assembly already constructed to these, to allow to dry and cement ply former 5, tapered tail block, cross braces, ply plate 6, nose sheeting 7 and 8, fuselage parts 20 - 34 into place. At this stage the engine can be bolted to the radial mount of your choice and the radial mount bolted to the ply former assembly.

The position of this radial mount will vary depending on the engine and mount used, however, the centre line of the engine needle valve should be below the top of the clunk tank and the radial mount should be removable so that the engine mount area can be painted after the fuselage is completed.

TO STEP FOUR

TO STEP FIVE

.35 c.i. ENGINE SHOWN

STEP FOUR — FUSELAGE

Assemble the tailplane from parts 40,42 and the 1/4" sheet supplied, allow to dry and cement firmly to the fuselage. Assemble the fin from parts 35,36,37,38 and cement to the top of the fuselage. It is most important that both fin and tailplane are correctly aligned for best performance from your model. Complete the basic fuselage structure by adding parts 10,11,12, balsa nose block, ply tailskid, dowels, balsa gussetts. Remove the radial mount and sandpaper the entire fuselage to a smooth finish all over.

TO STEP SIX

STEP FIVE — R/C INSTALLATION

Join the elevators 41 with hardwood dowel and shape as shown in the fuselage side view. Attach to the tailplane with three Aero-Flyte number 404 nylon hinges on each side. Attach the rudder 39 to the fin with three nylon hinges also. It is essential that these surfaces move freely to avoid any undue strain on the radio equipment. The R/C equipment should now be installed using this plan or the R/C manufacturers specifications as your guide. Install your equipment neatly and accurately carefully checking that all linkages move freely.

DUE TO CIRCUMSTANCES BEYOND OUR CONTROL, IT MAY BE NECESSARY TO DRILL OUT THE HUBS OF THE AIRWHEELS SUPPLIED TO RUN FREELY ON THE UNDERCARRIAGE ARMS.

BALANCE POINT. DUE TO THE DIFFERENT WEIGHTS OF ENGINES AND BATTERY PACKS THE POSITION OF THE SERVOS MAY NEED TO BE ADJUSTED TO ACHIEVE THE CORRECT BALANCE. THE ACTUAL BALANCE POINT MUST BE WITHIN ¼" OF THAT SHOWN.

FUSELAGE TOP VIEW

FUSELAGE SIDE VIEW

NOTE: PREFORMED WIRE UNDERCARRIAGE AND WING ARE HELD TO FUSELAGE WITH RUBBER BANDS.

STEP ONE FUSELAGE

Lay each fuselage side on a flat surface and pin and cement parts 15,16 and all of 3/16" x 3/16" longerons and uprights into place as shown.

TO STEP TWO

STEP TWO — FUSELAGE

Plywood formers 1,2,3 are cemented and clamped together using good quality epoxy cement or similar. The top of these three formers are flush making a step at the base of former three.

When dry assemble these front formers, ply tank floor 13 and ply former 4 and cement together with epoxy cement. As this assembly forms the basis of the fuselage it is important that the formers are at exactly 90 degrees to the ply tank floor 13.

TO STEP THREE

STEP SIX — WING

Build the left hand wing directly over the plan as follows:- Pin down the bottom mainspar and ribs number 44 and cement. Pin and cement the shaped leading edge, bottom trailing edge, ribs 45, 46,47 and ply braces 48,49,50 into place using the centre rib dihedral template for the correct angle of the centre rib. Allow to dry and cement the top leading edge sheeting into place. It is advisable to pin this down well while drying. For best performance from your HUSTLER it is advisable to build in 1/4" washout under each wing tip and this is done by placing the washout template under the trailing edge of the outer three ribs. Now cement the top trailing edge sheeting into place.

STEP SEVEN — WING

Remove the left hand wing from the plan, break off the building tags and pin and cement the bottom leading edge sheeting into place. The right hand wing is built over the back side of the plan as follows:- Lightly rub oil or glycerine over the wing plan so that is becomes visible from the back side, block up the tip of the left hand wing and build the right hand wing around the wing braces 48,49,50 which will be protruding from the completed left hand wing. Use the same building sequence as before.

STEP EIGHT — WING

Complete the wing by trimming off the excess spare and sheeting and fitting the wing centre sheeting, wing tips and cap strips and double cement the centre section joint. If using an engine above .35c.i. capacity we suggest that the centre section of the wing is reinforced with fibreglass cloth and resin. Sand smooth and cover with silk, Aerokote or similar.

STEP NINE — FINISHING

To add strength to the front of the fuselage we suggest that the inside of the fuel tank compartment is painted with fibreglass resin. As it is important to keep fuel well away from radio equipment it is also advisable to build an 1/8" balsa covering over the battery pack to completely seal off the fuel tank from the inside of the fuselage. As the size and position of this varies with the R/C equipment used the parts are not supplied. The fuselage, fin and tailplane are covered with light weight Modelspan tissue applied with Aero-Flyte Dope and then painted with a good quality enamel.

COVER AND FINISH WITH AEROKOTE

CUT THIN SLOTS IN RUDDER, FIN, ELEVATORS, AND TAILPLANE, APPLY A SMALL AMOUNT OF CEMENT AND PUSH HINGE INTO SLOT.

TAILPLANE AND FIN

AFTER ASSEMBLY OF THESE PARTS ROUND OFF ALL EDGES AS SHOWN AND CEMENT THE TAILPLANE TO THE FUSELAGE USING PLENTY OF CEMENT TO ENSURE A STRONG JOINT. MAKE SURE THAT THE TAILPLANE IS SQUARE WITH THE FUSELAGE. WHEN DRY CEMENT THE FIN FIRMLY TO THE TAILPLANE. MAKE SURE THAT THE FIN IS VERTICAL AND STRAIGHT.

READ THIS SECTION BEFORE STARTING ANY ASSEMBLY

1. IMPORTANT: This kit now contains ply doublers which must be glued to the fuselage sides with wood working glue before any one of the assembly is commenced. Beware - build a left and a right side.

2. During Step one, the balsa rear doubler should also be fitted as shown - note the extension of the longeron to give added strength.

3. When using engines larger than .40 c.i, we suggest that:-

   In step 6, before fitting the top leading edge sheeting to the left or right hand wings, fit mainspar webbing (parts No. 56 & 57) in front of and behind the top and bottom mainspars as shown.

4. For the newcomer to R/C flying, we suggest the replacement of the braces 48, 49 and 50 by the parts 53,54 & 55. By using the new rib template shown, a greater dihedral angle is achieved, giving a far better "hands off" flight characteristic.

5. To reduce wing tip weight plastic tips are now included. Leaving the tips in the parent sheet, glue the wing tip inserts into the tips - do not use excess cement on the plastic. When dry, cut the tips at their cut off line, and sand edges flat. Glue the completed tips (left and right) into place instead of the block tips shown on the main plan.

6. Engine mount, clunk tank and throttle cable are now included - use as shown on main plan.

9 only	AF 407	Robart Hinge Point
OR 9 only	AF 404	Nylon Hinges
2 only	AF 402	Kwik Links
2 only	AF 406	Rudder Horn
3 only	AF 424	Snap Link
2 only	65mm - 75mm	Air Wheels
1 only	200cc	Clunk Tank

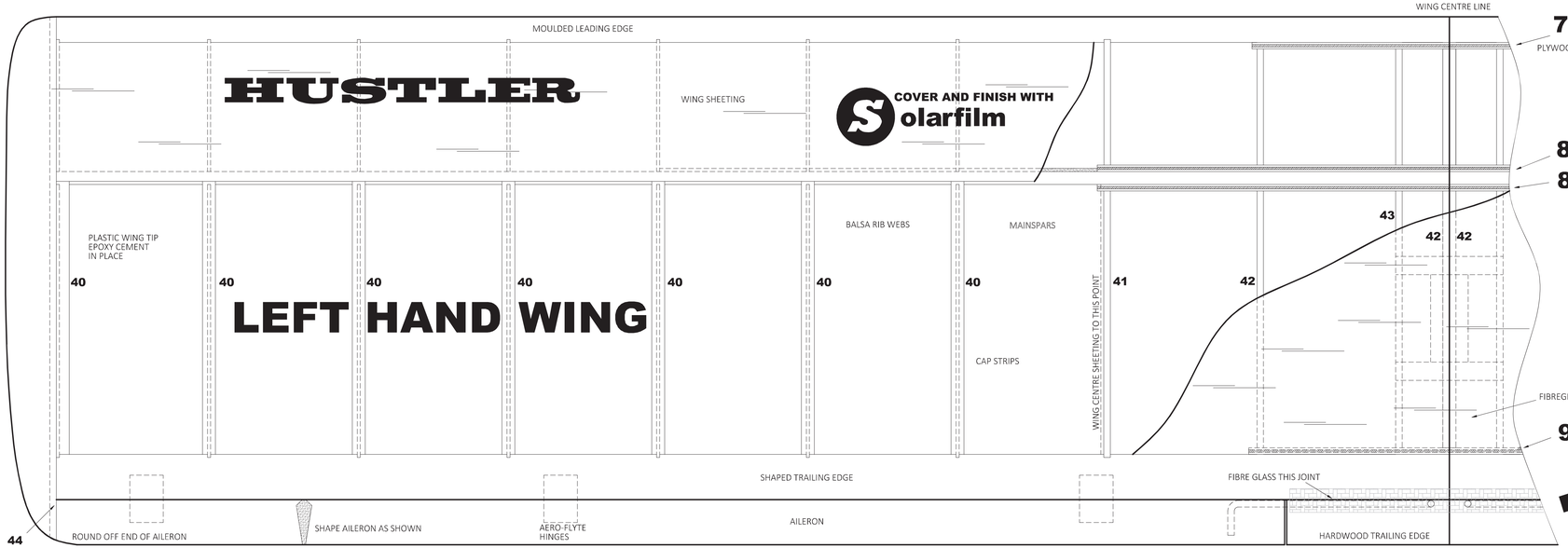
Radial Mount to suit your engine

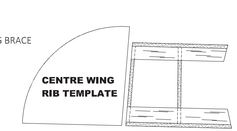
6.0mg Rubber Strip for wing and undercarriage attachment

2 sheets light weight Tissue for fuselage covering

2 sheets 26" x 50" AEROKOTE for wing cover .g

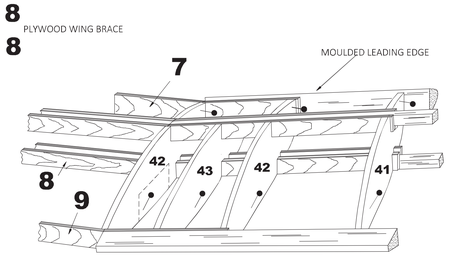
Throttle cable

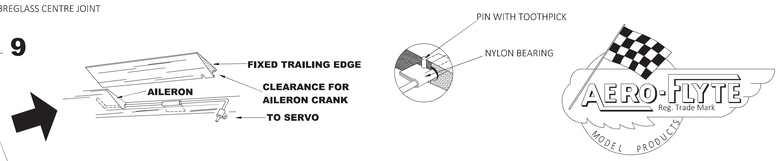




THE WING IS THE MOST IMPORTANT PART OF YOUR MODEL - AN EFFICIENT WING MAKES AN EFFICIENT MODEL. BUILD NEATLY AND ACCURATELY.

WING CENTRE CONSTRUCTION





1

Glue all braces and centre ribs with white glue. - C17 balsa cement all other joints. All ribs are fitted with building lugs to ease wing construction by giving a flat surface for building. Pin the bottom 1/4" x 1/4" mainspar over the plan and pin ribs numbered 40, the moulded leading edge and the shaped trailing edge into place, pushing the ribs into the slots provided. Next assemblr ribs 41 & 42 and braces 7,8,9, using the centre rib template to get the correct angle on centre rib 42. Thoroughly cement all joints. Before removing the left hand wing from the plan and building board, fit the top leading edge sheeting, the 3 rib webs and the cap strips. Do not fit the wing centre sheeting at this stage. Remove from the building board and carefully snap off the building lugs.

Rub an oily wad over the plan so that it is visible on the reverse side. Now place the centre rib of the partly assembled left hand wing on the wing centre line, Block up the wingtip 3" and build the right hand wing in the same sequence as the left hand wing.

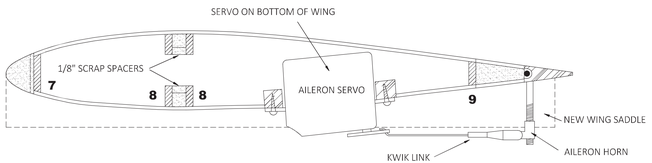
2

To complete the wings fit top centre sheeting and bottom cap strips. Position ribs 43 to suit your aileron servo, cut out centre rib 42 on the bottom as needed and fit the servo mounts. Sheet cover the wing bottom section. Cement ribs 44 into the plastic wing tip mouldings, allow to dry and trim off the excess plastic. Cement the wing tips to the end of each wing.

Groove out the hardwood trailing edge to allow free movement of the aileron cranks as shown. Using epoxy cement, fit the trailing edges to the wing with the aileron horns in place. Ensure that excess cement does not effect movement of the aileron horn. Fibreglass this joint and the wing centre section with 2" fibreglass cloth. Thisis essential for maximum strength.

3

Complete the wing by attaching the ailerons with the nylon hinges supplied, but do not cement the hinges at this stage. Before fitting the ailerons it is necessary to chamfer off the leading edge as shown. Sand the wing lightly all over and prepare for covering. Fit hinges finally after covering.



4

When servo is mounted (on underside of wing), ensure ailerons move freely, and with servo and ailerons in neutral positions, make up the kwik links supplied so that the threaded adjustment is half used, and the other end of the kwik link is firmly fitted to the servo output arms, one on each side (a double bend on the end will prevent these links coming loose). Ensure that when the transmitter stick is moved to the right, the left hand aileron (viewed from behind wing) goes down.

Fit the new wing saddles supplied into your Hustler fuselage, lining up the ends of the new and old saddles, and white glue in place. Sand any unmatched areas on the old saddle only. Fit rubber strip for wing protection. Secure wing with at least 4 1/4" rubber bands and check ailerons for free operation.

This wing plan will also suit the Aero-Flyte Gemini.
Mount the servo in the top of the wing instead of the bottom.

Traced from the original Aero-Flyte Hustler aileron wing kit plan.
John Moody, 13-11-2013