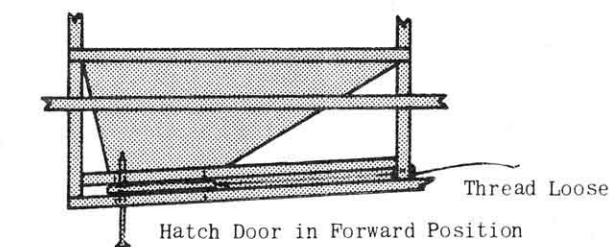


AUTOMATIC LEAFLET DROPPING

across bottom of struts. On engine powered models, make landing gear struts from hardwood. When using rubber for landing gear, use a thin wrap with tissue or silk for maximum strength. Model is now painted. If it is to be painted scale colors, use a fine brush and paint from Folk Art paint set. For best performance, use a minimum of color. Apply decals by dipping in water and sliding off into position shown in cut. Insert track into the hole in the side of the tail-cockpit. Cement machine guns in place. Outlines of scale control surfaces can be drawn on with a fine brush. Add landing gear to wheels. Place wheels on axles. Secure by bending up end of axle or with drop of cement or solder. Add a tail wing with a piece of wood of cockpit as shown on side view. Hold with pins until dry. Insert straight end of propeller shaft thru rear of nose bearing. Slip on propeller and secure with a rubber band. Back of free wheeling propeller. Bend about 1/4" of shaft at right angle, as shown on side view. Slip on a piece of rubber and cement the rubber first to prevent fraying. Double up to make two loops then insert rubber thru side of trap door and engage with the nose bearing. Make hook on end of a piece of wire. Slip thru hole in cowl and capture rubber on hook. Slip on a piece of rubber and cement the nose bearing fits into center hole in cowl. Your Ansaldo S.V.A. is now complete. See Flight Instructions for details of how to fly. 6000 LUCK AND HAPPY LANDINGS!!!

plates mechanism. To operate Wind rubber motor. This will pull rear hook forward to a horizontal position, loosening thread. Turn model over and pour confetti or small squares of paper into hopper. Loose thread now permits moving the hatch door forward, closing off hopper as shown in Sketch 2. Model is now released, and towards end of flight when motor unwinds, rear hook pulls back into vertical position. This tightens the line, pulling hatch door open, permitting leaflets to drop out.



Technical drawing of a wire hook. The top view shows a rectangular plate with a hook on the left side. The hook is labeled "1/32 Wire Hook". The top view is labeled "TOP VIEW". The side view shows the profile of the hook, labeled "SIDE VIEW". The side view shows a rectangular plate with a hook on the right side. The side view is labeled "SIDE VIEW". The drawing includes labels for "Section B" and "Section A".

3/32 slot into front of fuselage for torque rod. Using a length of 1/16 wire at least 16" long, insert thru hole, then bend "U" in front of wire and bend "U" back into fuselage as shown above. Pull back and engage U in escape. Bend rear at right angle as shown, to engage in yoke. Cut off wire 3/4" above yoke. Raise and lower rudder to check for proper operation of the amount of rudder movement. Wire all radio equipment together in accordance with R/C manufacturer's instructions. Batteries are stored between wing and fuselage in the fuselage compartment line compartment with foam rubber, then insert batteries. Wrap receiver with foam rubber and place in fuselage in same compartment behind battery. Glue in place. Tighten wing nut and wing screw. Bend small wire hook for antenna attachment and cement to front of rudder. Bring antenna out of cockpit and fasten to hook with rubber band. When antenna is properly adjusted and fully finished, it must balance as shown on side

view. If necessary, add weight but DO NOT ATTEMPT TO FLY UNTIL BALANCE HAS BEEN ACHIEVED. Check w/wins and tail warps; if any have developed, correct them with the proper tools in Covering Instructions. Wait for calm weather for test flights. Field test R/C equipment before flying, as described in manufacturer's instructions. If you are flying in the R/C LOW SPEED, then launch model with nose pointed slightly down at a point 50 or 60 feet in front of you and release at approximate flying speed. Model should glide smoothly and either gain or maintain or slightly lose altitude. If model turns to either side, rudder or engine may be off set to opposite side to achieve a straight flight. If model stalls, check engine speed. If model glides well but stalls under power, point front of engine down (down thrust) by placing shim under top of fuel tank. Increase engine RPM. If model stalls under power, check controls before each flight. GOOD LUCK AND GOOD FLYING!!!



The image is a composite of technical drawings and photographs related to the construction of a biplane, identified as the Ansaldo.

- Top Left:** A technical drawing of a "COCKPIT PATTERN". It consists of a large oval shape centered within a trapezoidal frame. The word "Front" is written vertically to the left of the frame.
- Top Right:** Two black and white photographs of the Ansaldo biplane. The top photo shows the aircraft from a side profile, highlighting its high-wing configuration and landing gear. The bottom photo shows the aircraft from a front-three-quarter view, featuring a roundel insignia on the fuselage.
- Bottom:** A detailed technical diagram of the engine firewall assembly.
 - Left:** A side-view cross-section of the engine and firewall. Labels include:
 - Cox .020 Tee Dee:** Points to a component on the engine.
 - Plastic Tube:** Points to a vertical tube above the engine.
 - Plastic Nut Plate:** Points to a horizontal plate.
 - Cut out plastic in front of engine to provide flow of air for engine cooling:** A note with an arrow pointing to a gap in the firewall.
 - Plastic Radiator Cowl:** Points to the front cowling of the engine.
 - Center:** A top-down view of the "PLYWOOD ENGINE FIREWALL". It shows a rectangular shape with two circular holes labeled "1/8 Holes".
 - Right:** A detailed view of the "Plywood Fire Wall" construction, showing "Hardwood Engine Mount Blocks" and a "Bulkhead" (labeled "Bulk" in the image).

Engine is used if model is being built for control line, free flight or radio. Engine & installation material not provided in kit. Drawing shows installation of engine in fuselage. If you are building another similar engine may be used. Front of model should be covered with 1/32 or 1/16 sheet steel back to F6. Top is cut out for engine clearance. Fuselage is cut out for engine clearance. Fire wall, using full size drawing, drillings holes indicated. Cut two engine mount blocks 3/16 x 1/4 x 1" from hardwood. Cement them securely to plywood fuselage in position shown. When dry drill 1/8" holes thru engine mount. Weld engine to fire wall with #2 nuts & bolts. Tightening nuts securely. Cut plastic nut plates from molded sheet & cement them to back of bolt with wall over nuts. Drill 1/8" hole in bolt cap. Cement them to fuselage generously. Nut plate keeps nuts from turning.

so that engine can be removed by just unscrewing bolts. When dry, remove engine. Securely cement fuel pass to front of F2. Cut molded engine cowl to fit around engine. Cement in place. Detail note & fit over F1. Trim cowl to clear engine. Engine is installed until after model is painted and engine is installed. Cowl is then cemented or held in place with small wood screws. If it becomes necessary to remove engine, it is removed by pulling out of cowl. Engine is then re-installed & cowl re-cemented or screwed back in position. Add a 1-3/8" length of 1/16 I.D. plastic tubing to fuel tank fill & overflow lines. This tubing is used to admit fuel and allow easy admission of air stream. Make needle valve extension by forcing a length of 1/8 I.D. plastic tubing over head of needle valve. Force a length of 1/8 I.D. plastic tubing over the needle valve. Dowel should protrude at least 1/2 past cowl. Dowel should protrude at least 1/2 past cowl.

For best results, follow instructions carefully. **PILOT:** Cut halves from plastic sheet, leaving about 1/6 excess material. Carefully cut out slots for nose and body. (See photo) on top, bottom and both sides. The pilot will fit the model itself as shown. This will permit accurate assembly of halves. Cement halves together, lining up the slots. Use **SPARSINGLY** since excessive use of cement may distort the plastic. After assembly is complete, dry in a warm, dry room. After drying, paint (if you read Paint Instructions for this model) pilot is cemented in cockpit as shown in side view. **NUT PLATES:** Cut from sheet and install in fuselage as shown. **WING:** Cut from sheet. **INSTALLATION:** **COWL:** Cut from sheet, leaving about 1/6 excess material. Trim excess material carefully.

fully and sand smooth. Cowls may be placed on F1 for support while trimming and sanding. Install as described in Final Assembly or Engine Installation. MACHINE GUNS Cut from plastic sheet and sand smooth. Coat with primer. Paint with enamel. Place after model is painted. PAINTING Use regular plastic model paint or enamel. Model airplane coats can be used ONLY IF APPLIED IN LIGHT SPRAY COATS. Do not apply more than 2 coats, usually between coats. Excessive use of dope may deform plastic. Parts may be used red. If painting a lighter color, apply a light coat of silver, followed by a light coat of the color to be painted. Use final color. Darker colors may be applied directly to red plastic. When cementing parts in place on model, use thick coats of cement. Do not apply too much. Do not use more than one coat, but DO NOT APPLY A THICK COAT AT ANY TIME.

CAUTION:

Do not fly control line models in the vicinity of electric power lines!

The mainstay of the Italian Air Force until the end of the first World War was this long range scout-fighter. The Ansaldo S.V.A.5 was also used for propaganda purposes. Our model DROPS LEAFLETS just like its real-life counterpart did, automatically in flight.

FLIGHT INSTRUCTIONS

When model has been completed, it must balance at point shown on side view. DO NOT ATTEMPT TO FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED, add weight if necessary. Check wing and tail. If warps have developed, remove using steam method described in Silkspan Step. Model is now ready. Pick a calm day for test flying. On rubber powered models, wind propeller clockwise approximately 100 turns and launch into any prevailing wind slightly nose down at a point on the ground approximately 50 feet ahead of you. If model noses up and then falls off and stalls, (AFTER MODEL WAS BALANCED) then bend elevators down slightly using hot breath in same manner as steam. If model dives, bend elevators up. If model veers too much to one side, bend rudder to opposite side. Take-offs require more power and therefore more turns in rubber motor. For longer flights and competition, it is recommended that the loops of rubber be lubricated with model lubricant (Available at most Hobby Shops) or Castor Oil. Apply sparingly AND KEEP OFF KNOT OR IT WILL COME UN-DONE! Use winder which you can make by tightening hook into hand drill. To store winds in motor, stretch rubber out three to five times original length, then proceed to wind, moving slowly back to model. Feeling rubber from time to time to be certain it does not get so taut that it breaks. Upon reaching the nose, motor should be completely wound. When replacing rubber motor, purchase contest grade T56 brown rubber at your favorite hobby shop. Engine powered free flight models are tested and flown in same basic manner as above and is described in Flight Instructions at end of Radio Control Installation Note. GOOD LUCK AND GOOD FLYING!!!

INSTRUMENT PANEL

Cut From Plan And Cement To P4

ANSALDO S.V.A.5

PHILA. PA. USA

KIT A18
WING SPAN 19"

L24UJ4

When model has been completed, it must balance at point shown on side view. DO NOT ATTEMPT TO FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED, add weight if necessary. Check wing and tail. If warps have been removed, move on to the next step, the design of the Silkspun Step. Model is now ready. Pick a calm day for test flying. On rubber powered models, wind propeller clockwise approximately 100 turns and launch into any prevailing wind slightly nose up at a point on the horizon about 100 feet ahead. As the model noses up and then falls off and stalls, (AFTER MODEL WAS BALANCED) then bend elevators down slightly using hot breath in same manner as steam. If model dives, bend elevators up. If model turns too far to the right, bend elevators to opposite side. Take-offs require more power and therefore more turns in rubber motor. For lon-

for loops and competition, it is recommended that the floops of rubber be lubricated with model lubricant (Available at most Hobby Shops) or Castor Oil. Apply sparingly and KEEP OFF KNOT or IT WILL COME OFF! Now, DOWN on which you wish to fly, and hook into hand drill to store winds in motor, stretch rubber out three to five times original length, then proceed to wind, moving slowly back to model. Feeling rubber from time to time to be certain you are winding so that the rubber is not reaching the nose, the motor should be completely wound. When replacing rubber motor, purchase contest grade T56 brown rubber at your favorite hobby shop. Ensign powered free flight models are tested and flown many times before they are ever described in flight instructions at end of Radio Control Installation Note. GOOD LUCK AND GOOD FLYING!!!

Materials required are not provided in kit. Make bell crank platform from 1/16 plywood using full size plan above. Securely cement platform to rear of agitator and extend from F9 to Full between L6 and stringer below it in same manner. Cut 1/8 slot in rear for control rod as shown. Cut two 14" lengths of 1/2" diameter rod and extend to rear of F9. Push rod is 1/16 wire at least 13" long. Make a right angle bend at one end. Place in fuselage, insert in bell crank, and mount assembly to rear of F9. Bend rod at right angles to one that come with bell crank. Cut stabilizer in half thru wide main spar as indicated by dotted lines. Round edges & install control horn at rear of stabilizer. Cement control horn to stabilizer with cloth hinges shown. Bend "U" shape elevator joiner from wire. Make hole for joiner in rudder - then cement spurs to both elevators in line with stabilizer. Cement elevator joiner to elevator. Cement stabilizer horizontally in place against F10. Tape elevators in neutral position (in line with stabilizer, neither up or down). Make elevator control rod from 1/8" rod. Cut rod at precisely the location of hole in elevator horn, with bell crank in neutral position as shown.

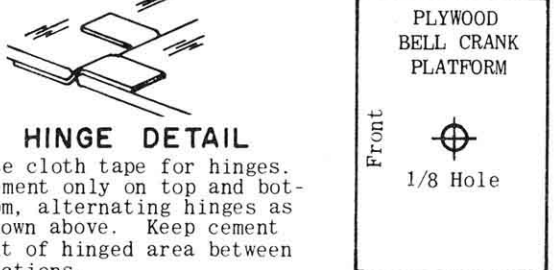
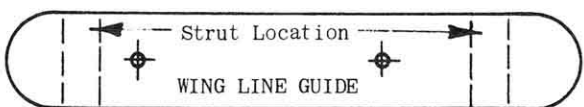
Trim off excess and insert into horn. Solder washer on end to prevent rod from coming off. Controls are now in neutral position and must work properly. Check for proper operation on dotted lines shown on full size drawing. Cement rubber band on fin with rear of rudder turned at angle 1/2" towards outside of circle flown in. Check rudder vertically to point of stability. L1 and L2 against rear of fuselage. Assemble wings to fuselage as described in Final Assembly Detail. Make wing guide from 3/32" aluminum plate. Attach wing guide to fuselage securely to bottom wing against struts as shown. Reinforce washers for lines in fuselage and wing guide with washers or eyelets. Thread lines through fuselage and wing guide. Attach end of lines at least 2" past wing tip. Lines must be of equal length when elevator is in neutral position. Control system must operate properly. Check for proper operation in advance (or slightly nose down) at point shown on side view. If necessary, add weight. Use regular 1/8" Control Lines and handle when flying your Royal Flying Corps Lin Range. Good Luck!!

Propaganda Leaflet Destroyer. GOOD LUCK!!!

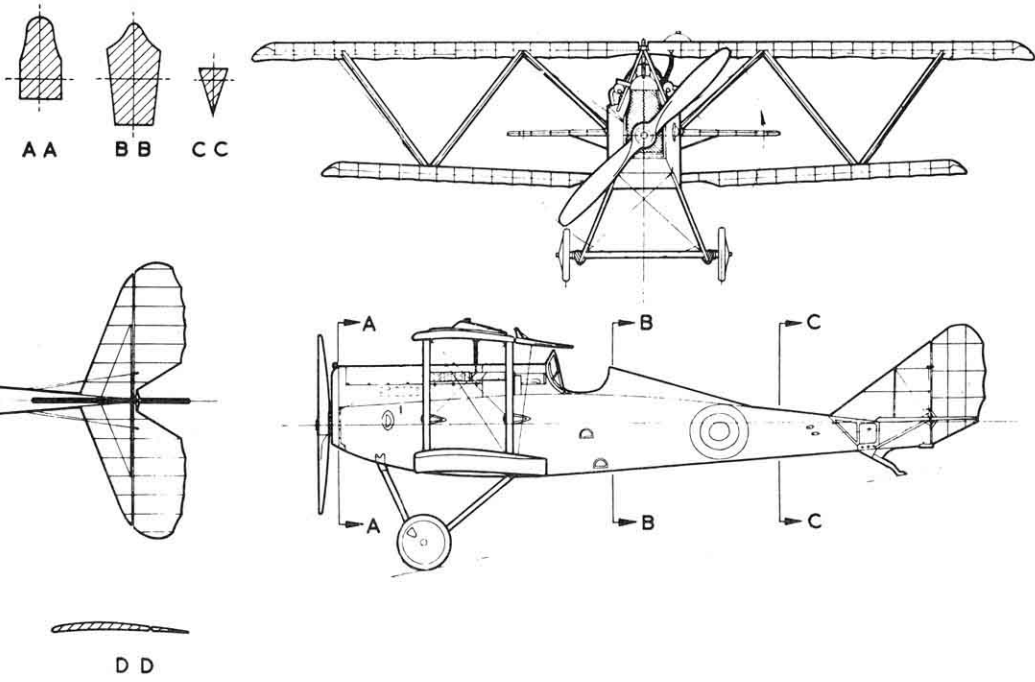
GOOD FLYING!!!

Use cloth tape for hinges. Cement only on top and bottom, alternating hinges as shown above. Keep cement out of hinged area between sections.

CAUTION:
Do not fly control line models in the vicinity of electric power lines!



ANSALDO S.V.A.5 SPECIFICATIONS AND COLOR SCHEME

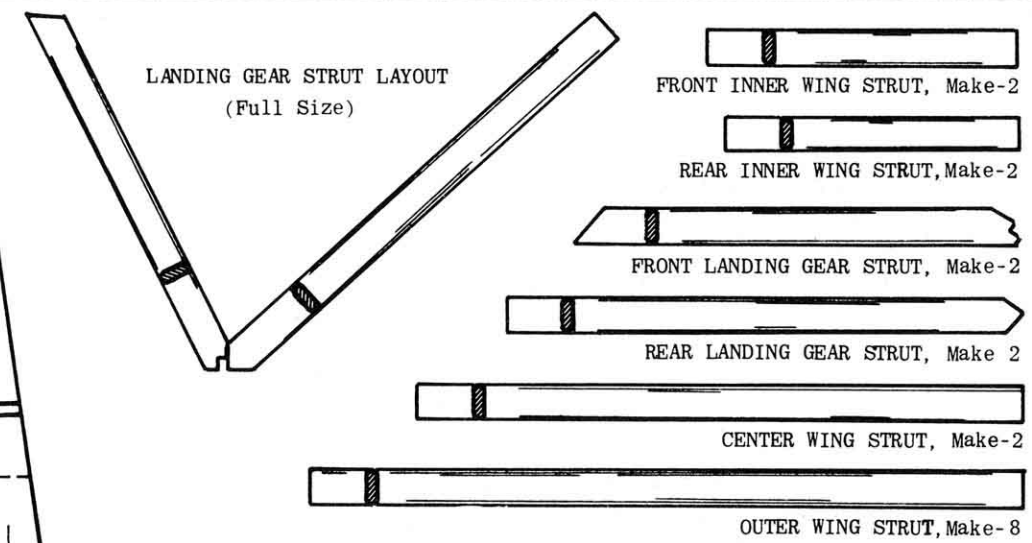
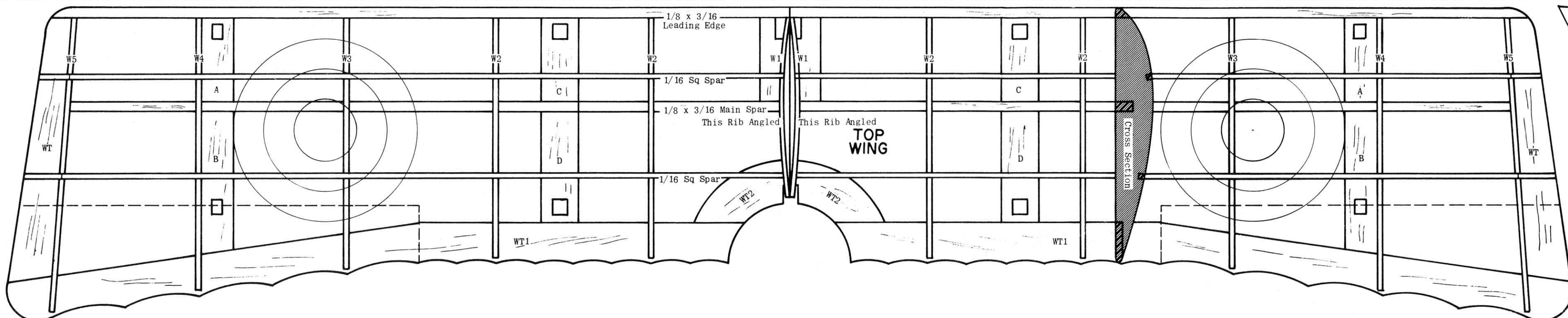


Wing Span - 31 Ft. 0 In.
Length - 26 Ft. 8 In.
Height - 9 Ft. 8 In.
Maximum Speed - 134 M.P.H.
(at 6,500 Feet)
Ceiling - 22,000 Ft.
Fuel Capacity - 75 Gallons
Engine - S. P. A., 220 HP
Armament - Two Vickers
Machine Guns
on Fuselage

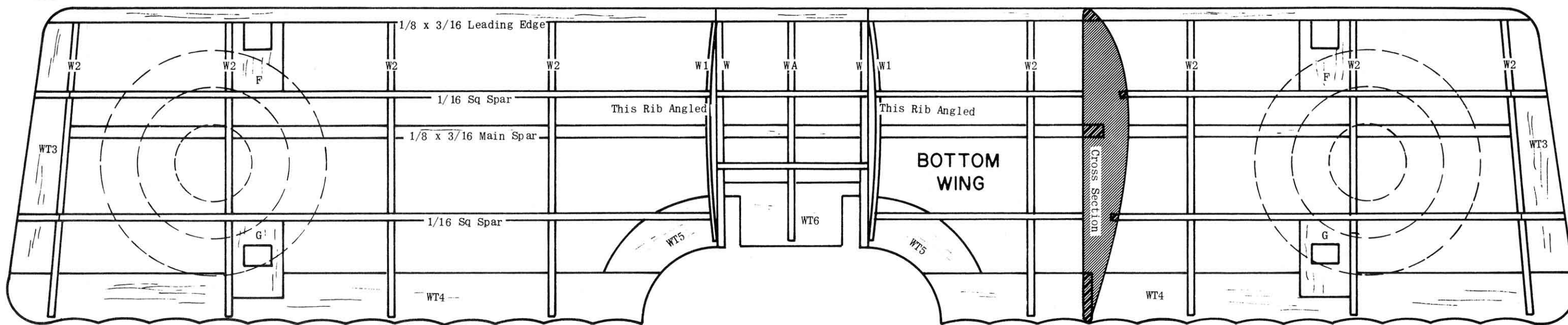
COLOR SCHEME:
See box 1 for authentic
color scheme, decals for
which are provided in kit.
Color schemes varied with
individual squadron and
pilot, also with the use
of this versatile and best
aircraft designed and
built in Italy.

ANSALDO S.V.A.5

KIT A18
WING SPAN 19"



STRUT DETAIL
All struts shown full size are made from 3/32 x 1/4 strips provided in kit. Round edges to cross section shown and cut to pattern. Struts are installed as described in Final Assembly Note.



TOP WING ASSEMBLY

STEP 1

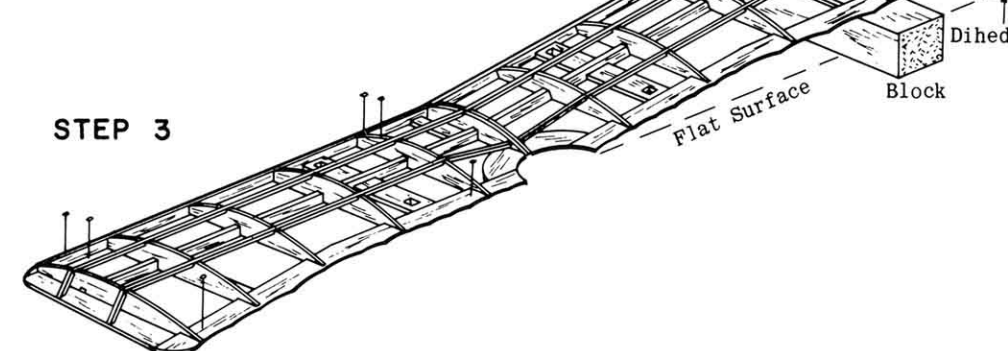
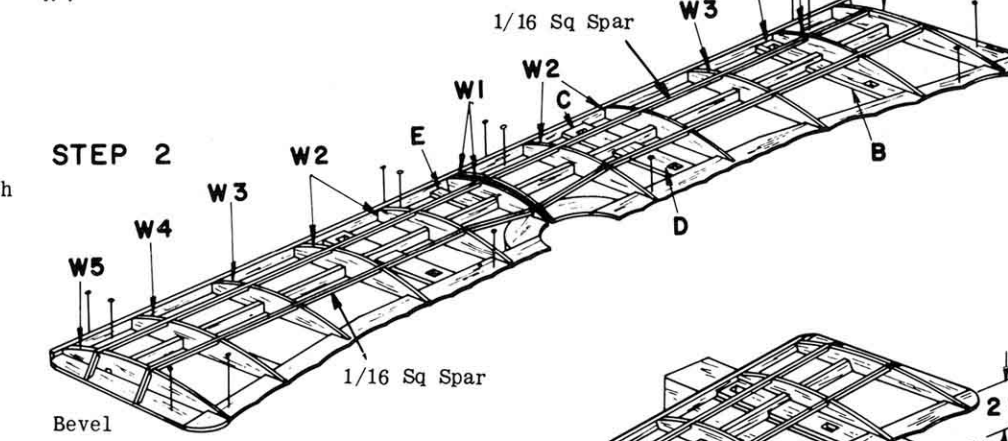
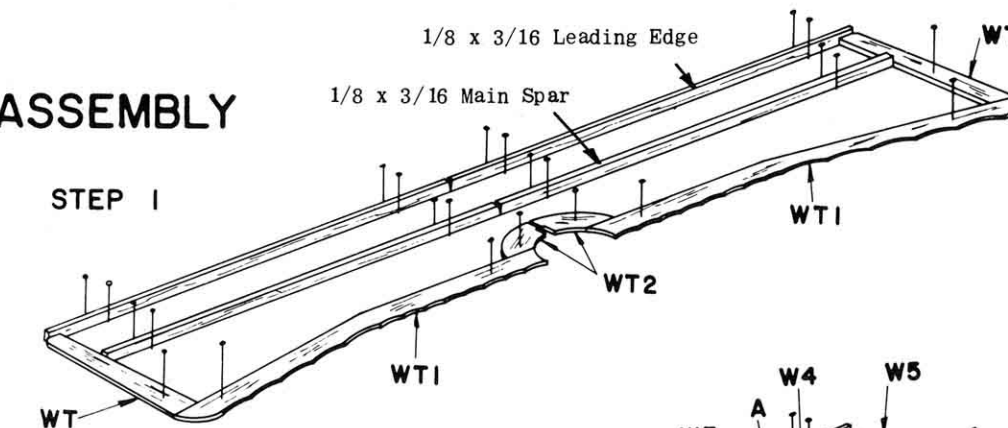
Build wings on flat surface directly on plan. Pin all WT parts in place, cementing to each other where they join, except at center joint. Using 1/8 x 3/16 x 12, cut Main Spar and Leading Edges to proper length. Pin in place upright, cementing to WT's.

STEP 2

Ribs W1's to W5's are now cemented in place. All ribs are vertical except ribs WT's at center joint which are cemented in place at angle as shown, using rib angle template (see detail note). This provides for dihedral angle shown and described in next step. Cement strut Gussets A, B, C, D & E in place as shown on sketch and full size plan. Cement 1/16 sq spars into notches along top of ribs. Bevel ends of 1/16 sq to fit at tip as shown. Allow frame to dry thoroughly before removing from flat surface.

STEP 3

Pull out pins carefully and remove frame from flat surface. Separate sections & trim & sand leading edge to shape shown on wing cross section. Round off tips & trailing edge as shown, to blend smoothly into each other. Trim off leading edge, spars and trailing edge flush to angle of ribs W1, then cement sections together on flat surface, blocking up 2-3/8" at tip rib as shown. Measurement must be the same at leading and trailing edge so that wing is not warped. Other side is pinned or weighted to keep flat on surface. Use cement generously and allow to dry thoroughly. When dry, sand frame smooth to prepare for tissue covering.



BOTTOM WING ASSEMBLY

STEP 1

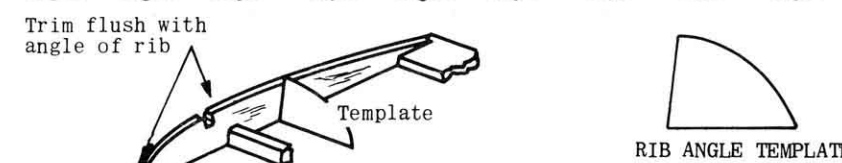
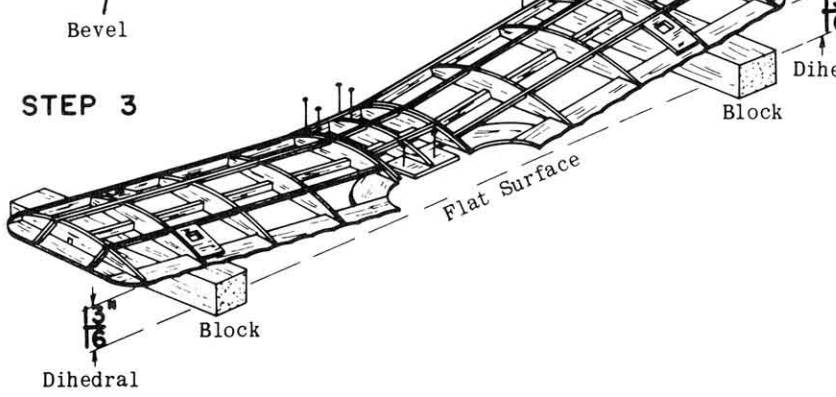
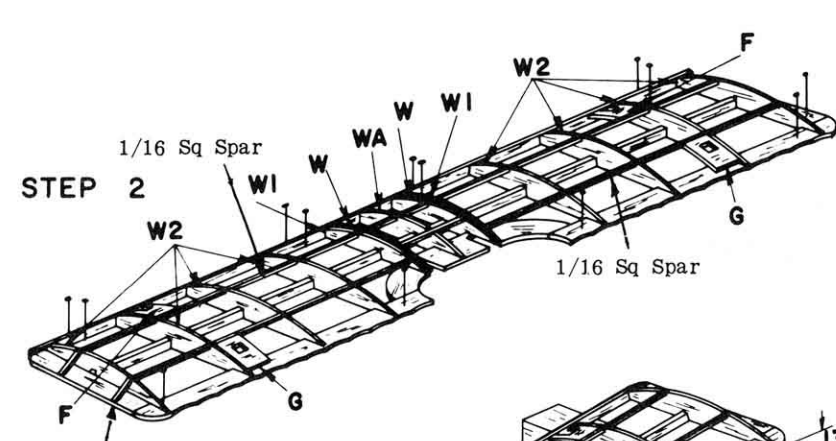
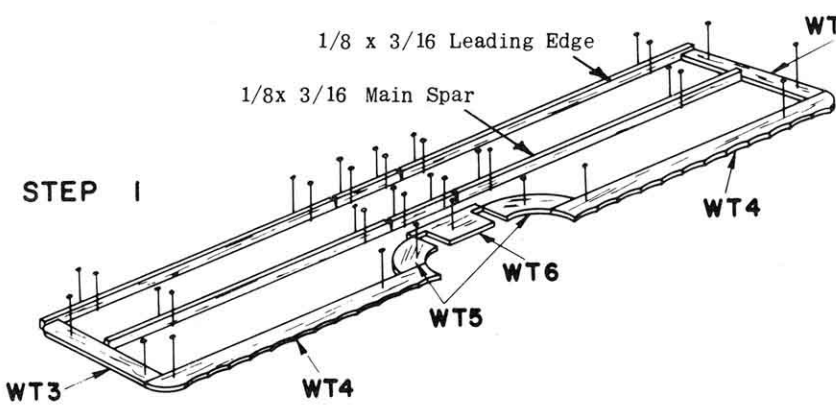
Start bottom wing in same manner as top wing, using parts shown.

STEP 2

Ribs W, WA, W1 & W2 are now cemented in place. Ribs W1 are installed at angle using rib angle template. Cement 1/16 sq spars into notches along top of ribs, beveling at tips. Cement strut gussets F's & G's in place flush with top of rib. Allow frame to dry thoroughly.

STEP 3

Carefully pull out pins and remove frame from flat surface. Separate sections, shape leading edge, tips and trailing edge in same manner as top wing, then trim leading edge, spar & trailing edge flush with angled ribs. Cement sections together to form 13/16 dihedral angle under tip rib, using blocks as shown. Pin down and weight center section and see that measurement is the same under both leading and trailing edges so that wing is not warped. When thoroughly dry, remove from flat surface and sand smooth to prepare for tissue covering.

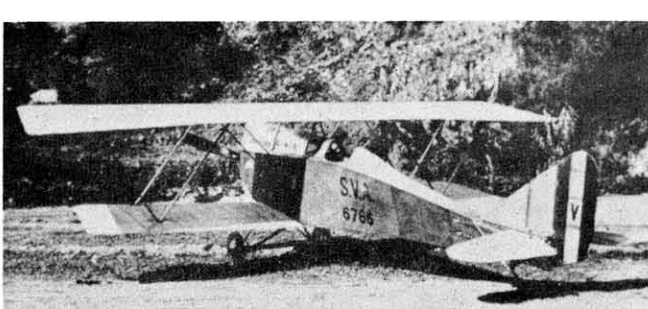


RIB ANGLE DETAIL
Sketch above shows how wing rib angle template is used as described in Wing Step 2.

SILKSPAN TISSUE COVERING

The finest grade wet strength silkspan tissue provided in this kit permits covering of compound curves without wrinkling, when moistened with water before applying to frame. Tissue shrinks when dry to tight smooth surface. Follow directions for a smoothly covered warpage, fine flying model. Use clear dope to attach tissue as follows: Apply a light coat to the outside edges of area to be covered and allow it to dry. Cut tissue to shape needed, about 1/4" over size. Place tissue on flat surface and dampen with moistened cloth by dabbing. Apply second coat of clear dope to frame then place moistened tissue on frame. Pull tissue gently with fingers, working out all wrinkles. WHEN COVERING WINGS & TAIL SURFACES, PIN FRAMEWORK TO FLAT SURFACE TO PREVENT WARPS AS TISSUE DRIES. Cut out any wrinkled areas (bounded by nearest framework) and re-cover. Apply two or three coats of clear dope, thinned 50-50 with thinner, to wings and tail surfaces before assembling, pinning on flat surface to prevent warps. COVER TOP WING FIRST: Cover bottom in two pieces from center ribs to tips. Cover top in two pieces from center ribs to tip ribs W5. Cover tips with small separate pieces. On control line models, add about 1/2 ounce of weight to lower tip on outside of circle flown. COVER BOTTOM WING NEXT: Bottom of wing is covered in one piece. COVER STABILIZER AND RUDDER NEXT: Cover both sides of each in one piece. Install leaflet dropping mechanism (see detail) before covering fuselage. COVER FUSELAGE NEXT: Cover fuselage sides first with one piece each. Cover each side of top front section from F1 to F5 with one piece, joining over L1. Tissue must be attached to frame to follow shape of fuselage. Cover front & rear sections of bottom of fuselage. Cover top rear of fuselage in two pieces, from F6 to rear, joining over L2. Using patterns provided, cut cockpit cover from stiff paper, and cement in place. Trim tissue out of notches in all gussets in wings and fuselage. Apply four coats of thinned dope to tissue covering on fuselage. Check wings and tail surfaces for warps before assembly. Warps can be removed by holding over steam (from boiling kettle) and twisting gently in opposite direction. Check again when cool.

control line models, add about 1/2 ounce of weight to lower tip on outside of circle flown. COVER BOTTOM WING NEXT: Bottom of wing is covered in one piece. COVER STABILIZER AND RUDDER NEXT: Cover both sides of each in one piece. Install leaflet dropping mechanism (see detail) before covering fuselage. COVER FUSELAGE NEXT: Cover fuselage sides first with one piece each. Cover each side of top front section from F1 to F5 with one piece, joining over L1. Tissue must be attached to frame to follow shape of fuselage. Cover front & rear sections of bottom of fuselage. Cover top rear of fuselage in two pieces, from F6 to rear, joining over L2. Using patterns provided, cut cockpit cover from stiff paper, and cement in place. Trim tissue out of notches in all gussets in wings and fuselage. Apply four coats of thinned dope to tissue covering on fuselage. Check wings and tail surfaces for warps before assembly. Warps can be removed by holding over steam (from boiling kettle) and twisting gently in opposite direction. Check again when cool.



Rare photo of Ansaldo at the Front ready for Action

FUSELAGE ASSEMBLY

STEP 1

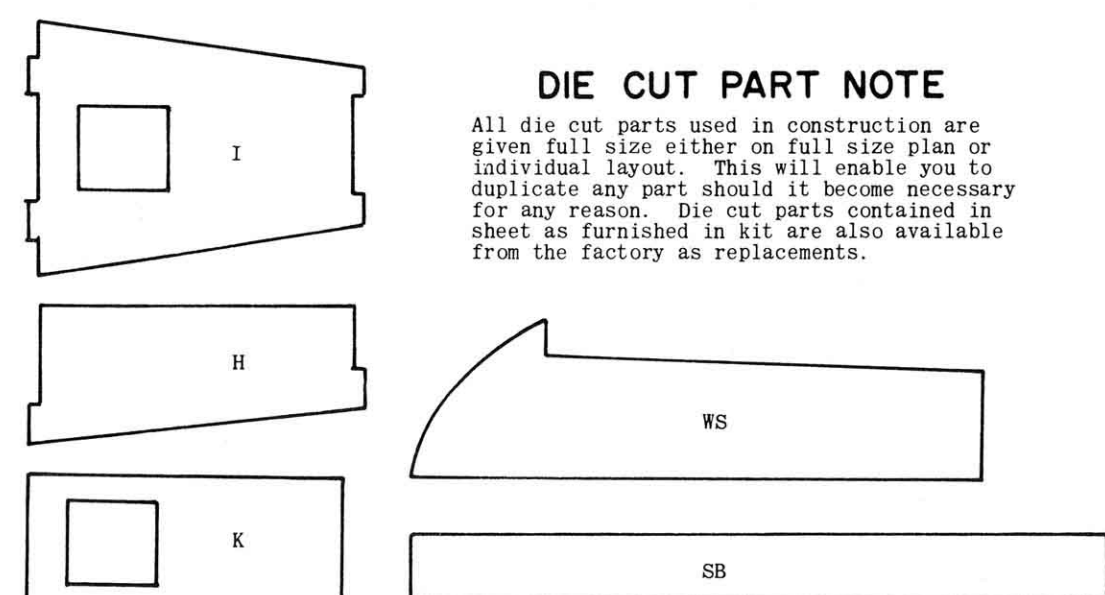
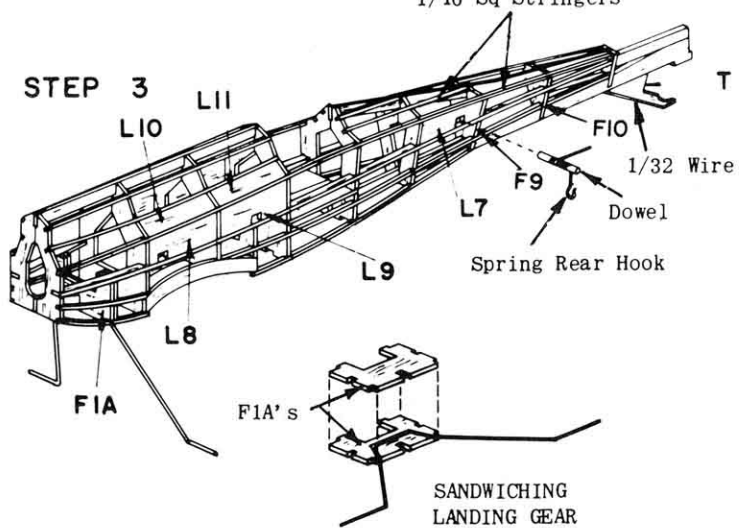
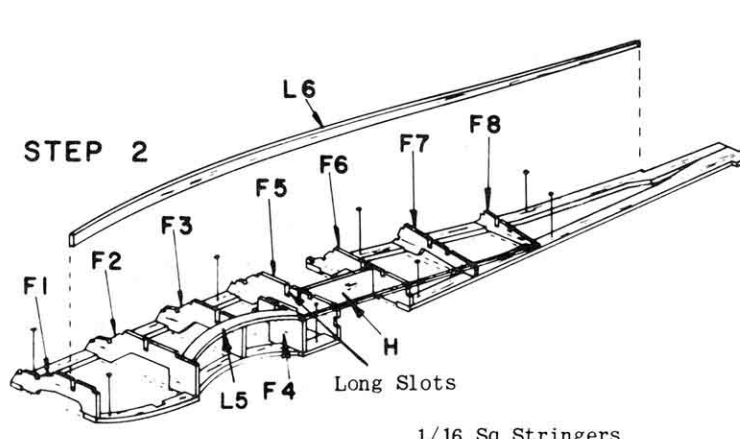
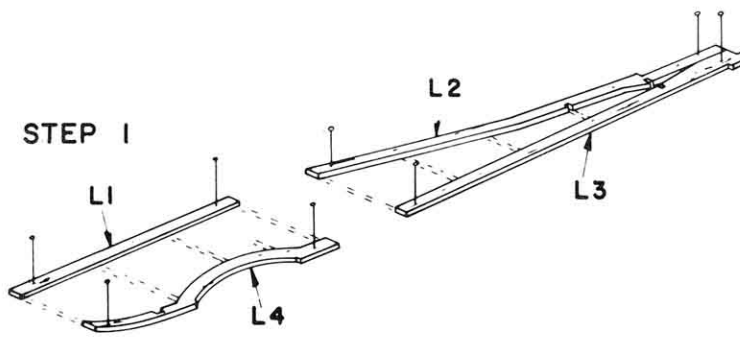
Fuselage construction is started on flat surface directly over plan. Pin all L parts in place as shown, cementing L2 & L3 together at rear.

STEP 2

Cement all bulkhead halves from F1 to F8 vertically in place, then add L6 which is inserted into long slots in center of bulkheads. Cement H into notches between F5 & F6. Cement L5 in place against top of notch in F3 & F4, allowing space for 1/16 stringer below L5 at F4. Space for 1/16 stringer is also allowed above & below L5 at F2. Add 1/16 strip stringer in place from F4 to rear as shown.

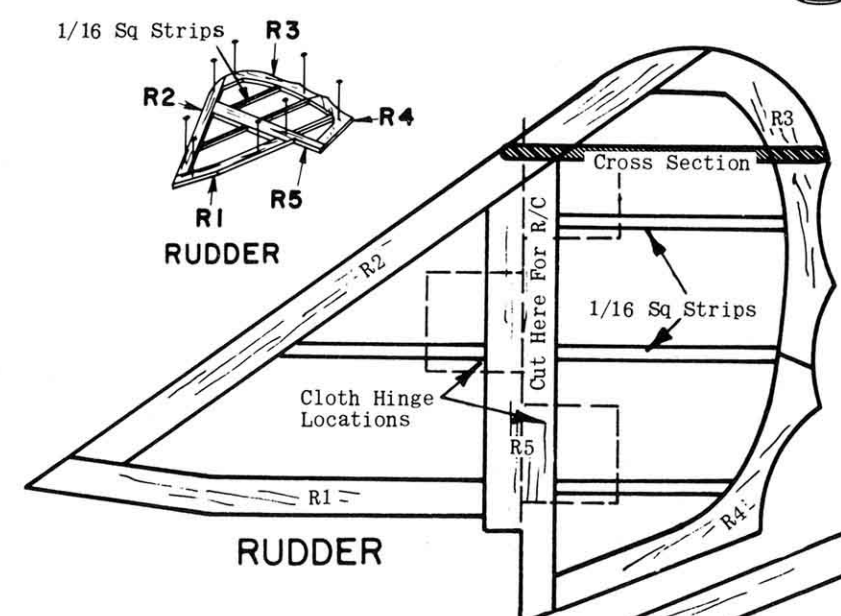
STEP 3

Pull out pins and remove frame from flat surface, then cement opposite halves of bulkheads in place. Insert bulkheads F9 & F10 into notches in L2 & L3. Cement L6, L5 & H in place. Sandwich landing gear between F1A's as shown. On engine powered models, it is recommended that landing gear be duplicated from 1/16 music wire. Cement unit securely in fuselage, fitting into notch in L4. Cement all stringers into notches as shown. Cement L7, L8, L9 & L10 in place as shown, flush with outside of frame. Make hopper assembly as shown and described in detail note. Cement bin to bottom of H, applying cement liberally around all sides where it connects bulkheads. Securely cement hopper slide assembly in place, making sure it slides freely and easily. There should be at least 6" of thread hanging from rear of slide door. Insert 1/8 dowel through coil of spring rear hook. (Omit rear hook on engine powered models.) Bend hook part half the distance to opposite side so that hook is in center of fuselage (top view) when installed. Slip unit into fuselage, inserting ends of dowel between L7's and L6 and cement securely. Push straight end of spring rear hook thru right side of bulkhead F8 above side keel L6, and cement securely in place. Only straight end of hook is fastened, leaving coil free for spring movement. Cut a 1-3/4 length of 1/32 wire, make pin hole in L3 at location shown on side view, then insert & cement wire at angle shown. Cement T to rear of wire and bottom of fuselage. Frame is now complete. Allow to dry thoroughly, then sand lightly to present a smooth surface for tissue covering, which is described in its detail note. If model is to be engine powered, see Engine or Control Line note BEFORE COVERING FUSELAGE.



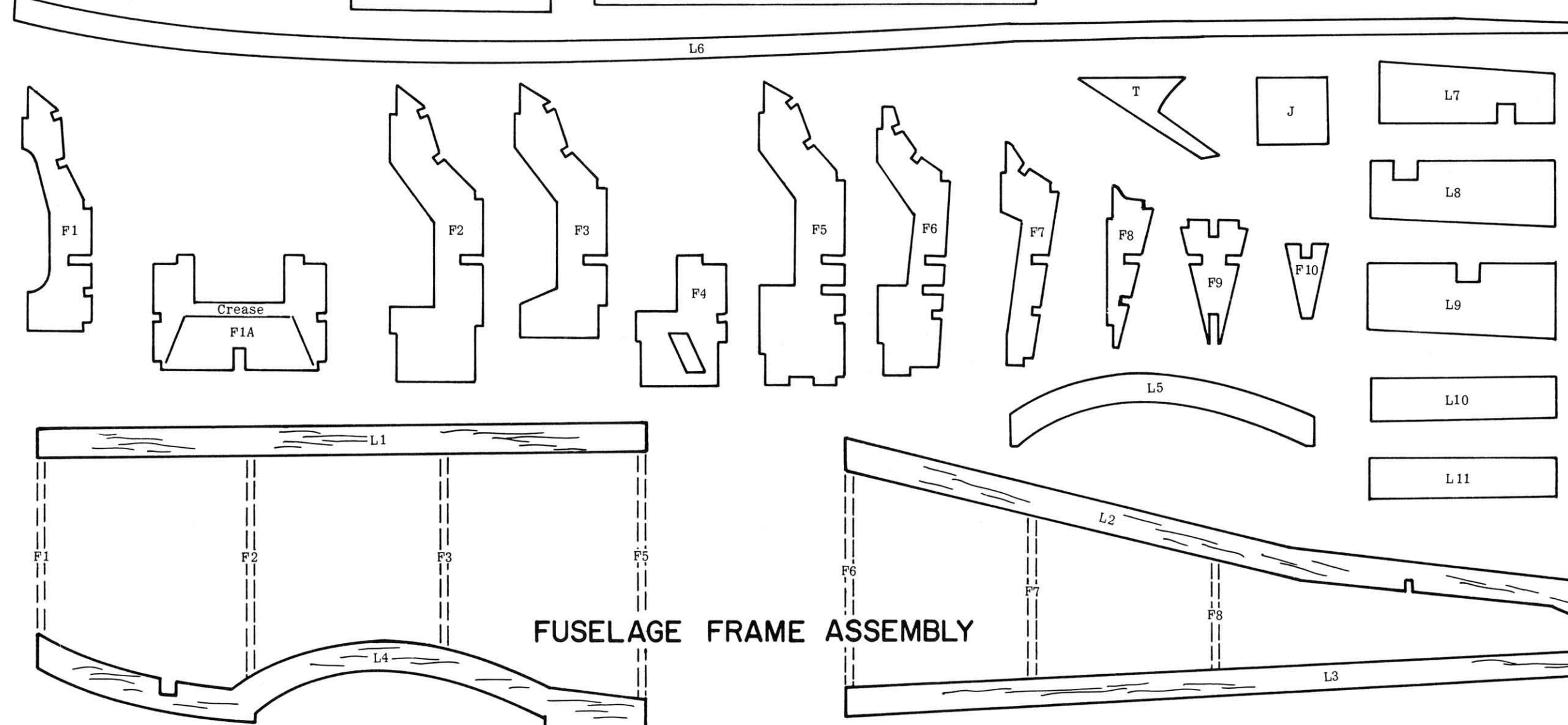
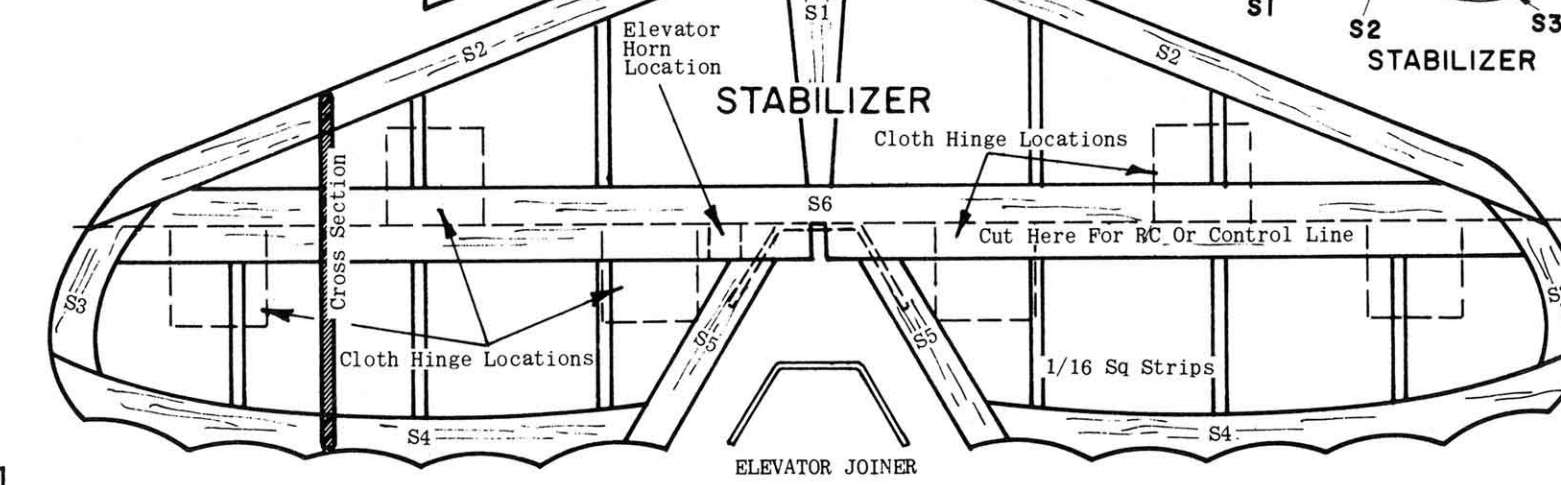
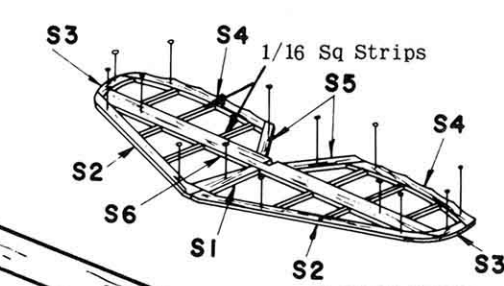
DIE CUT PART NOTE

All die cut parts used in construction are given full size either on full size plan or individual layout. This will enable you to duplicate any part should it become necessary for any reason. Die cut parts contained in sheet as furnished in kit are also available from the factory as replacements.



TAIL SURFACE ASSEMBLY

Assemble stabilizer by pinning all S parts directly on plan as shown, cementing to each other where they join. Cut 1/16 sq strips to fit, and cement in place. Rudder is built in same manner, using R parts shown. Allow assemblies to dry thoroughly on flat surface, then sand smooth, rounding edges (except bottom of R1 & R5) as shown on cross section. If model is being built for control line, check note before covering with tissue.



FUSELAGE FRAME ASSEMBLY