FUSELAGE ASSEMBLY

STEP 1

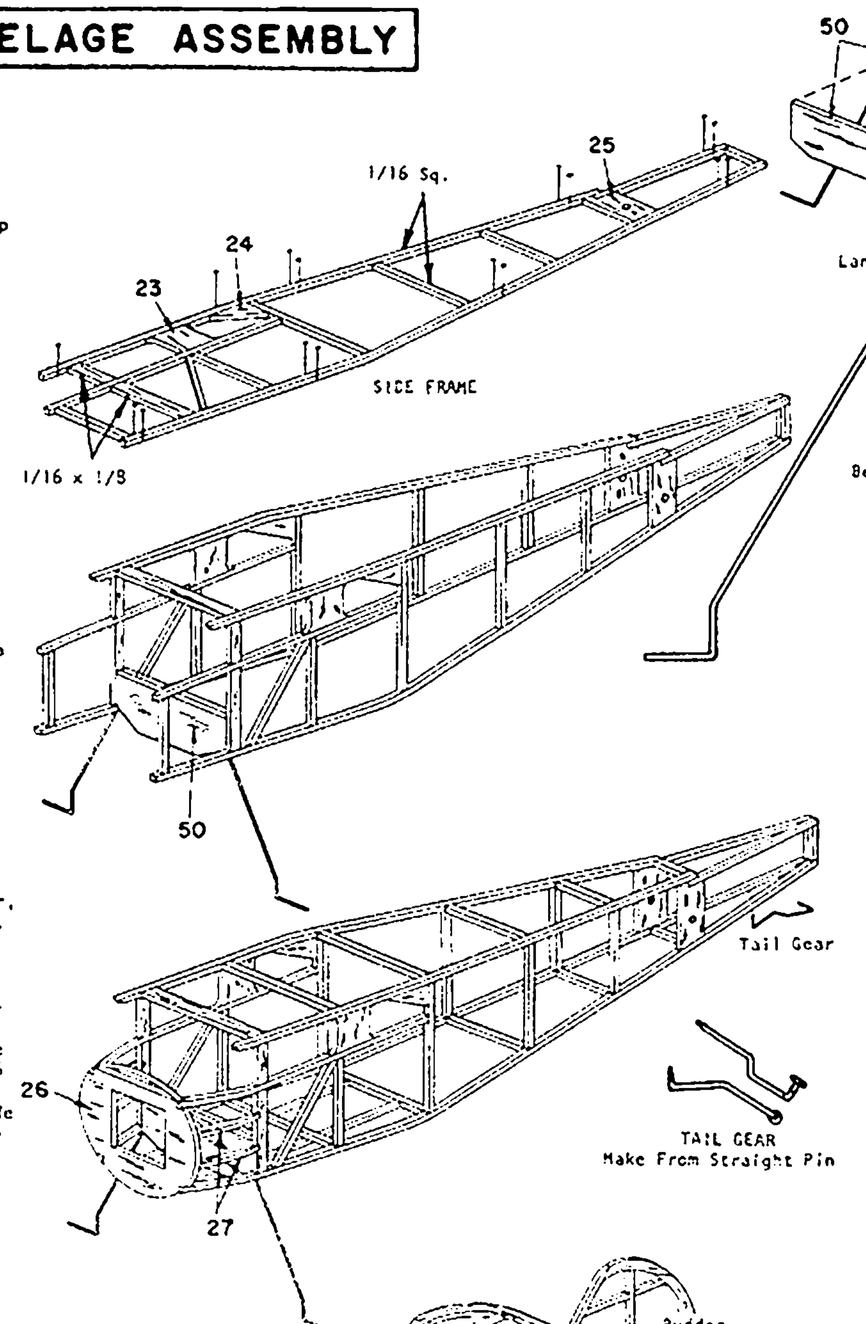
Important--Be sure to read Introductory Note on other side of plan before starting assembly of this model. Remove any creases in plan. Tape down to building board, and cover with Saran Wrap to prevent frame from sticking to plan. Printed parts may all be cut out before construction is started. Using wire provided, bend landing gear to shape of full-size pattern. Gear is now cemented between bulkheads #50, as shown on dotted location on #50. Solid black lines on full-size side view is the fuselage side frame. Cut 1/16" square & 1/16 x 1/8 strips carefully to length, pin & cement in place. Add parts #23, #24 and #25. Allow side frame to dry before removing from board, then build another identical side frame.

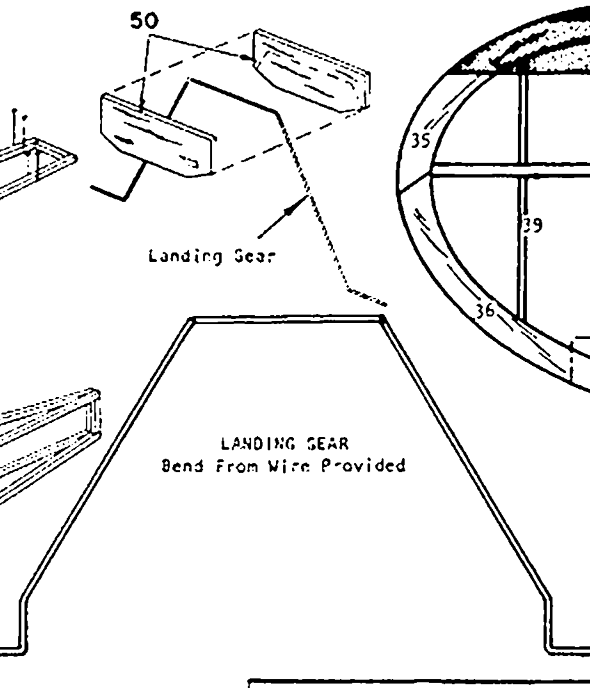
STEP 2

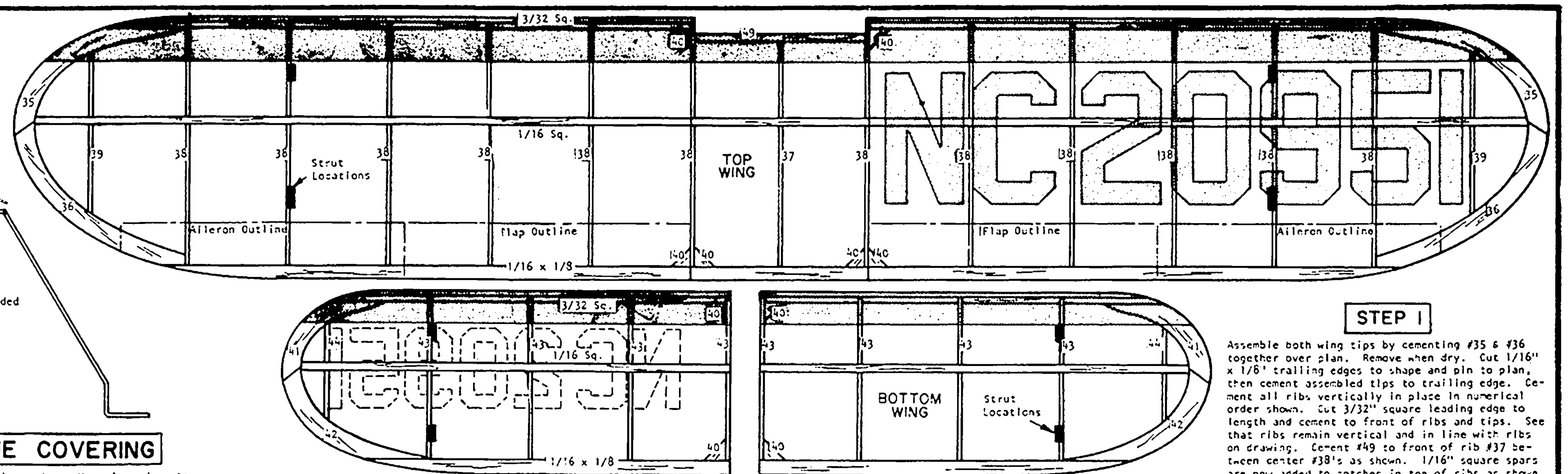
Assemble fuselage sides by cementing them together at rear. Be certain ends are perfectly flush with each other, then cement landing gear bulkhead #50 in place as shown. Cut the 1/16 x 1/8 cross-member to length and cement it in place at front of cabin as shown. Allow to dry.

STEP 3

Cement front bulkhead #26 in place as shown, cracking front corner stringers to aid in bending. Check alignment from top and front to be certain bulkhead is centered, then cut cross-members to length shown in solid lines on top view. Cement in place working from front to rear, holding sides together with tape where necessary. Where sharp bends occur, strip may be cracked or nicked with razor to remove strain. Both sides must be treated the same in order to avoid distortion. Check assembly with top view to be certain fuselage is aligned properly. Also check from front and rear to be sure fuselage is square and not distorted. When dry, cement the two 1/16 sq. bottom stringers in place as shown and add parts #27 to each side as shown on sketch and side view. Bulkhead #26 has top cut off at dotted location and then cemented back together leaning forward at angle shown on sketch and side view. Clip head off straight pin, bend tail gear to shape shown on pattern. Tail gear is shown on sketch for clarity only. It is installed after fuselage is covered.







TISSUE COVERING

Frame is covered tissue dry. Use clear dope to attach tissue. Apply a light coat of dope to the outside edges of the area to be covered and allow to dry. Cut tissue to shape required, about 1/4" oversize all around. Apply a second coat of dope to the frame, then put the tissue in place smoothing into frame and working out any wrinkles. When dry, excess tissue is trimmed off with sharp blade. If any wrinkles develop, cut out wrinkled area (bounded by nearest framework) and recover section. Entire model is covered with yellow tissue with red tissue trim. COVER BOTTOM OUTER PANELS OF WING using 1 piece for each panel: Cover top of wing in 3 pieces; center section and outer wing panels. If any problems of wrinkles is encountered on tips, use separate pieces of tissue. Cover bottom wing panels with two pieces each, one for top of wing and one for bottom. COVER STAB AND RUDDER with single piece of tissue for each side. COVER TOP, BOTTOM & SIDES OF FUSELAGE using one piece of tissue for each. Using a fine spray (such as from a perfume atomizer) spray tissue lightly with water to shrink. BE SURE TOP AND BOTTOM ARE SPRAYED AT THE SAME TIME! Set aside to dry on end, so that it is surrounded by air permitting equal drying. This should prevent warps. Apply 2 coats of clear dope thinned with equal parts of thinner (50/50). Apply to top and bottom of surfaces AT SAME TIME and allow to dry in same manner. Using full-size plan as pattern, cut red tissue trim and apply to model with thinned dope. When dry apply a third coat of thinned dope to all covered surfaces. Check that wing and tail surfaces are free of warps before assembling. Warps can be removed by holding over steam (from boiling kettle) and twisting gently in opposite direction. Hold until cool and check again. Model is now ready to be assembled as described in Final Assembly.

INSTRUMENT PANEL
Cement To #26

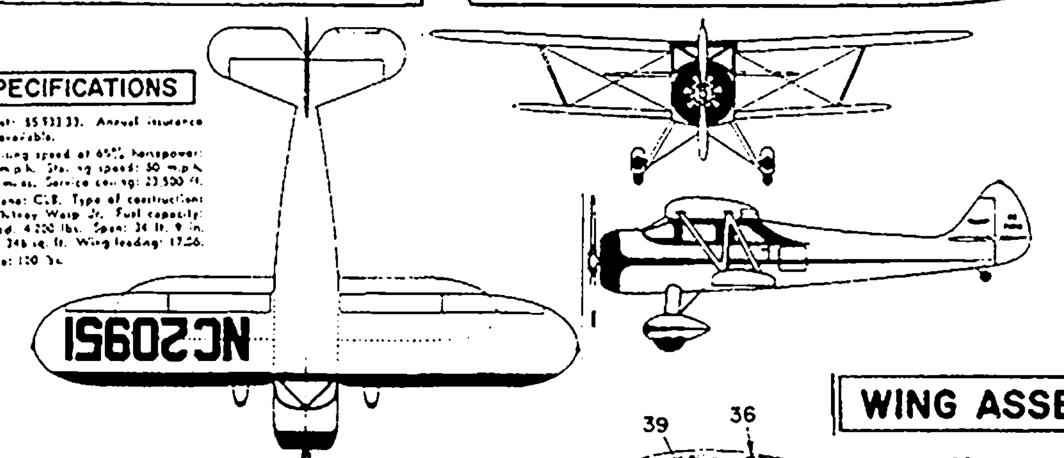
SCALE DETAILS AND SPECIFICATIONS

COSTS: List price: $17,800. Minimum down payment: $5,933.33. Annual insurance premium: $1,735.50. Operating cost per hour: not available.

PERFORMANCE: Miles per gallon of fuel: 9. Cruising speed at 65% horsepower: 155 m.p.h. Maximum speed at 5,000 feet: 202.4 m.p.h. Stalling speed: 50 m.p.h. Cruising range (excluding 15% fuel reserve): 880 miles. Service ceiling: 23,500 ft.

SPECIFICATIONS: A.T.C. No. 721. Type of airplane: CLB. Type of construction: metal, wood, fabric. Engine: 400 h.p. Pratt & Whitney Wasp Jr. Fuel capacity: 125 gals. Weight empty: 2,734 lbs. Weight loaded: 4,200 lbs. Span: 34 ft. 9 in. Height: 8 ft. 8 in. Length: 27 ft. 10 in. Wing area: 246 sq. ft. Wing loading: 17.06.

ACCOMMODATION: Number of seats: 5. Baggage: 150 lbs.



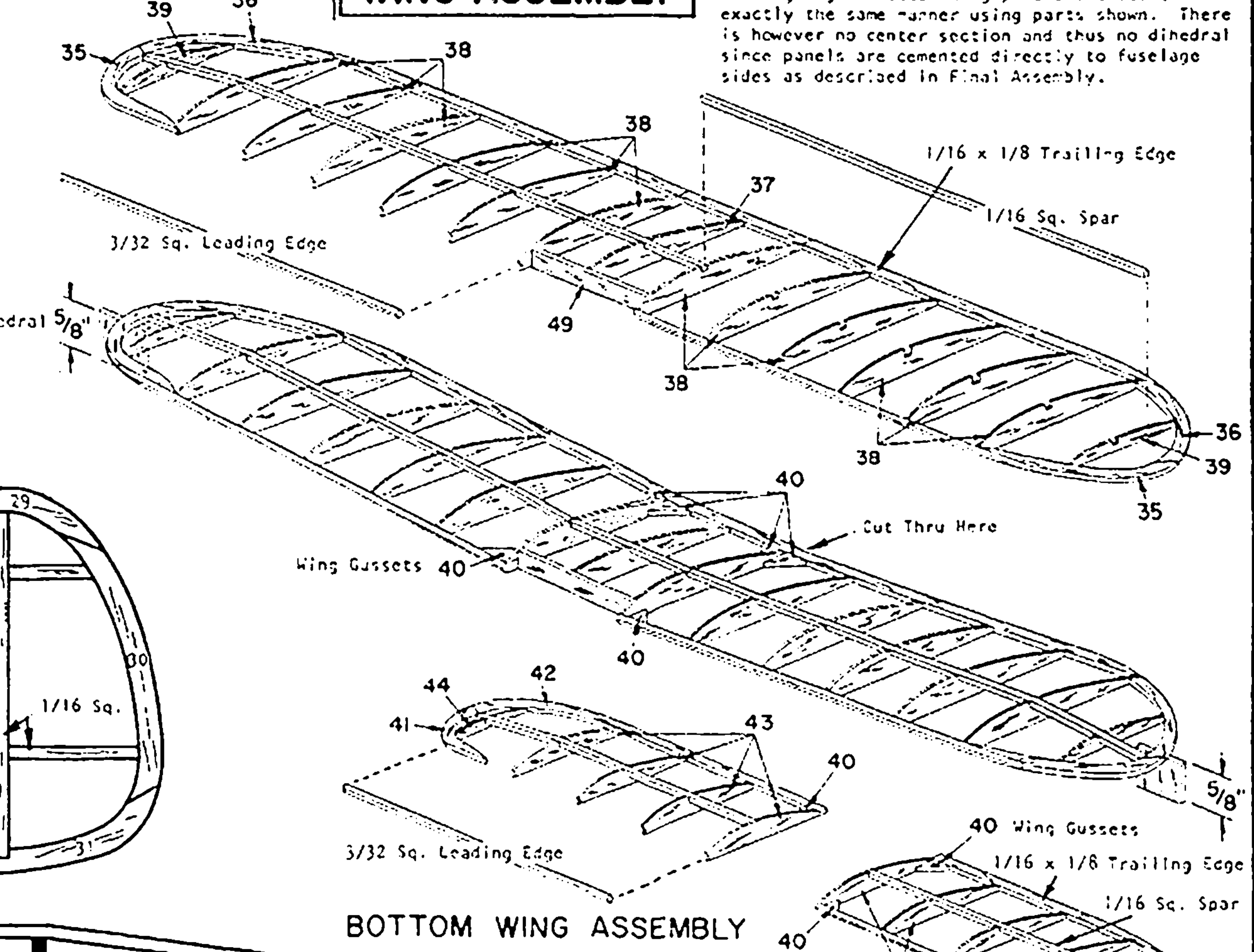
WING ASSEMBLY

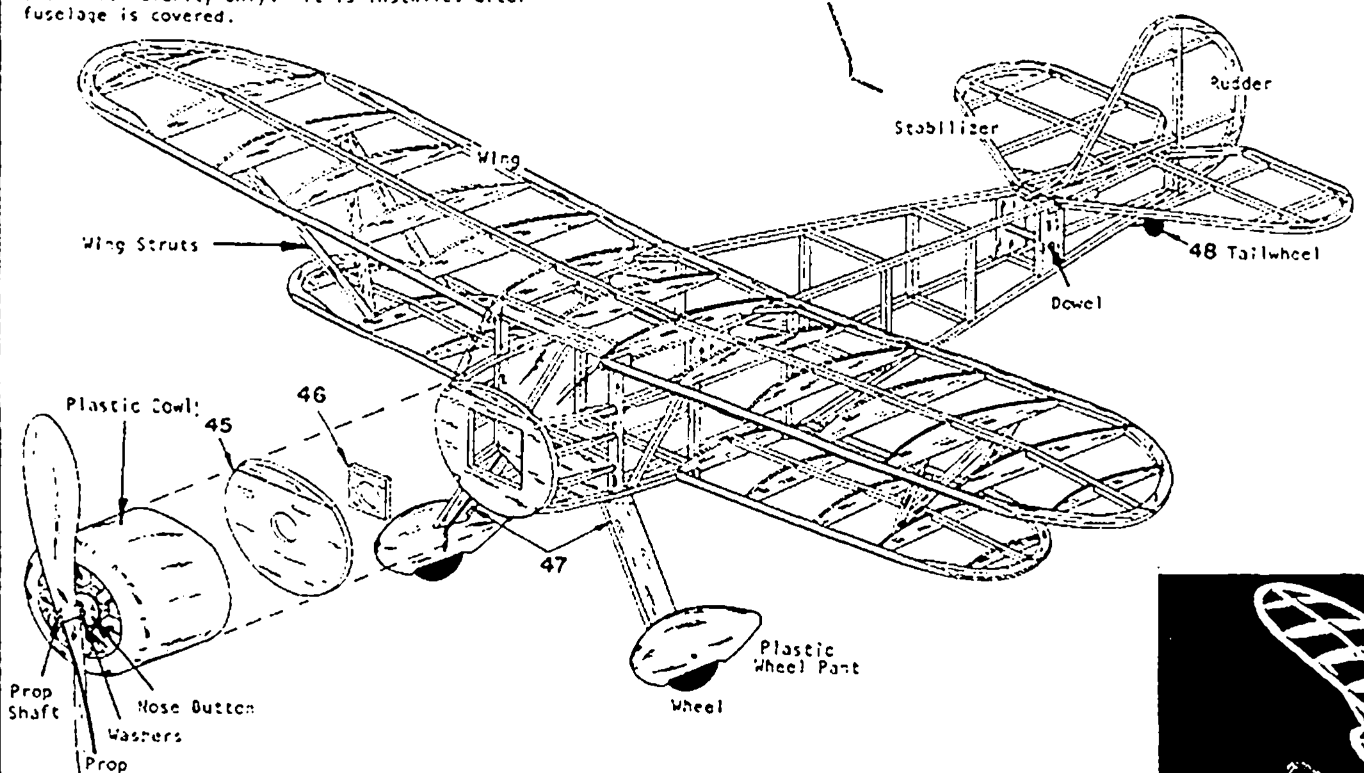
STEP 1

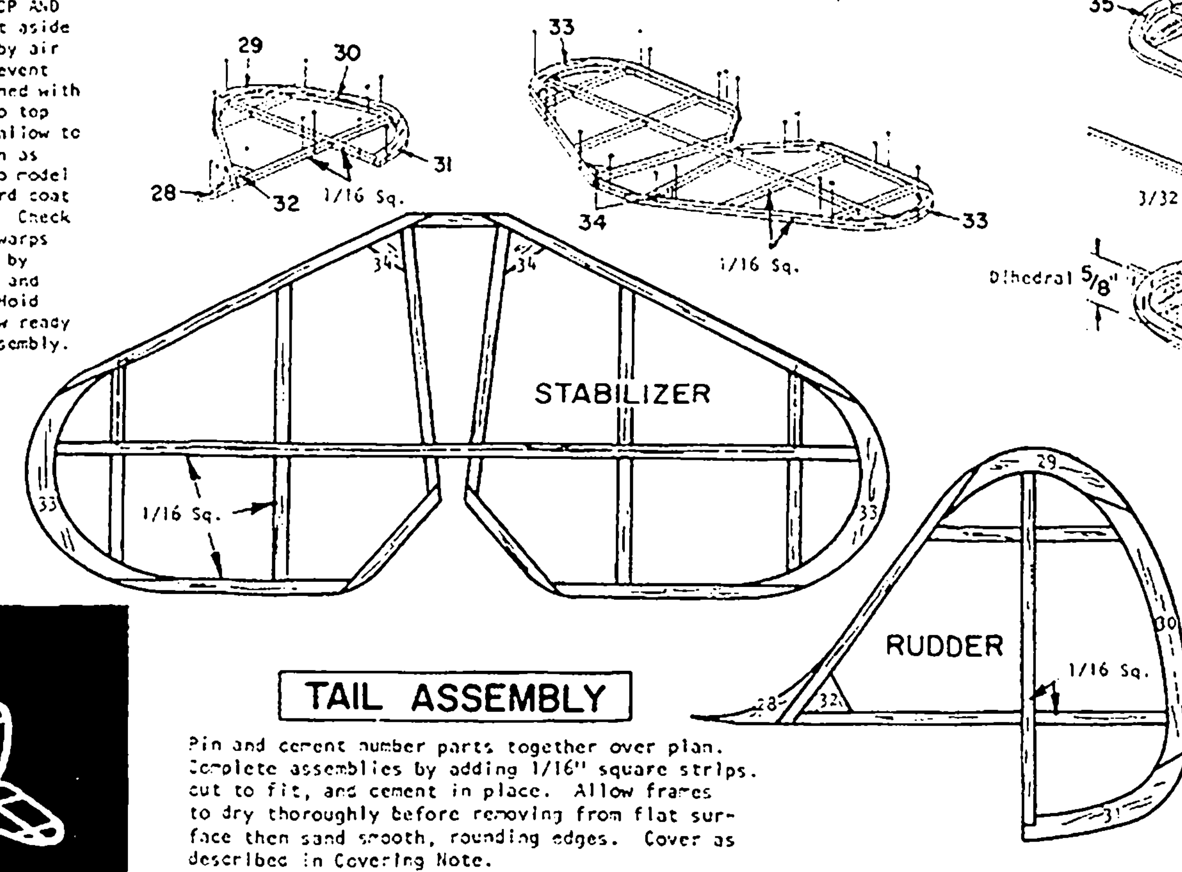
Assemble both wing tips by cementing #35 & #36 together over plan. Remove when dry. Cut 1/16" x 1/8" trailing edges to shape and pin to plan, then cement assembled tips to trailing edge. Cement all ribs vertically in place in numerical order shown. Cut 3/32" square leading edge to length and cement to front of ribs and tips. See that ribs remain vertical and in line with ribs on drawing. Cement #49 to front of rib #37 between center #38's as shown. 1/16" square spars are now added to notches in top of ribs as shown. All cemented in place except at center ribs #38, which must be free to move when installing dihedral in next step. Spars are cracked at outer rib #38 to angle down fitting flush within tip. Allow wing frame to dry thoroughly.

STEP 2

Using your sharp razor blade, cut completely through leading and trailing edges on outside of center ribs #38, thus separating outer panels from center section. Keeping center section pinned down, remove panels from flat surface and cement outer panels back in place, raising tips 5/8" as shown for dihedral. Wing gussets #40's are now immediately cemented in place and assembly permitted to dry THOROUGHLY. When dry, sand frame smooth rounding trailing edge and tips into leading edge. Bottom wing panels are built in exactly the same manner using parts shown. There is however no center section and thus no dihedral since panels are cemented directly to fuselage sides as described in Final Assembly.







TAIL ASSEMBLY

Pin and cement number parts together over plan. Complete assemblies by adding 1/16" square strips, cut to fit, and cement in place. Allow frames to dry thoroughly before removing from flat surface then sand smooth, rounding edges. Cover as described in Covering Note.

FINAL ASSEMBLY

Although sketch shows model uncovered, all components are actually covered (as described in Covering Note) before assembling model. Cement stabilizer and rudder to rear of fuselage, being certain stab is horizontal, rudder vertical. Cement wing to top of fuselage, trailing edge located as shown on side view. Check wing and tail alignment from front and top. Bottom wing panels are cemented to sides of fuselage as shown on sketch and side view flush with bottom of side stringer, then immediately cement wing struts in place, location shown on side view and wing plan. #47 landing gear struts are sanded smooth, rounding edges, then cemented to wire landing gear, shown on side view and sketch. Top may be cut off at angle (shown in sketch) to permit flexing. Cut wheel pants from plastic sheet. Push pin through axle hole locations then install by placing wheel in pant, then sliding both onto landing gear axle, capturing wheel within pant. Bottom of strut is beveled to fit and pant is cemented to strut with very light coats of wood model airplane cement (HEAVY COATS MAY DISTORT PLASTIC). Add drop of cement to axle protruding through outside of pant. Cut top off #45 at printed location then cement back together leaning top forward to match #26. Place #46 into corresponding cut-out in #26, trimming if necessary for snug fit. Apply a coat of cement to front OF #46 ONLY then put #45 in place, aligning with #26, pressing #45 against #46. When cement is dry remove assembled #45 & #46. Cut cowl from plastic sheet. Place assembled #45 & #46 on flat surface, #46 down. Push rear of cowl over assembly so that #46 is flush with rear of cowl and #45 is recessed 1/16" within cowl. Cement in place with VERY LIGHT COATS of wood model airplane cement to prevent distortion. Cut top of plastic cowl off to fit top of #26. Using celluloid provided, cut windshield to pattern shape and cement in place. Slip nose button on propeller shaft, followed by the two washers. Insert shaft through rear of prop and make a 90° bend in end of shaft to engage prop. Install rubber loop by dropping thru fuselage. Push dowel thru hole in #25, thru rubber loop and into hole in opposite #25, thus capturing rubber. Bend wire hook out of paper clip and pull rubber loop out of fuselage and engage in propeller shaft hook. Bend tail gear to shape of full-size pattern and cement in place as shown on sketch and side view. Slip tail wheel #48 onto tail gear as shown. Box wrap shows color trim. Main trim is applied with tissue as described in Covering Note. Use PLASTIC MODEL PAINT for any paint trim. Apply decals at location shown. Scale control surface outlines may be drawn carefully with India Ink or thin strips of black tape.. Your Peanut Scale Waco S.R.E. is now finished. Be sure it balances at arrow shown on side view, and that you read flight instructions on other side of plan before flying. We would like your comments and suggestions on this kit and possible new kit selections. Write to: Sterling Models, Inc., 3620 "G" St., Phila., Pa. 19134, U.S.A. GOOD LUCK AND GOOD FLYING!

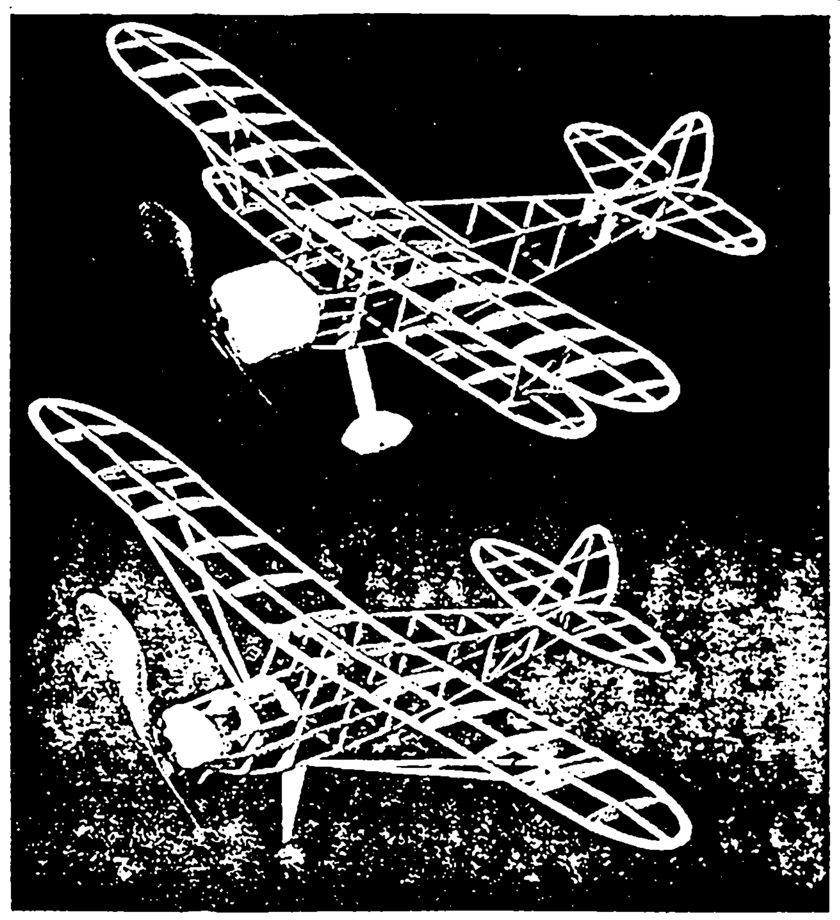
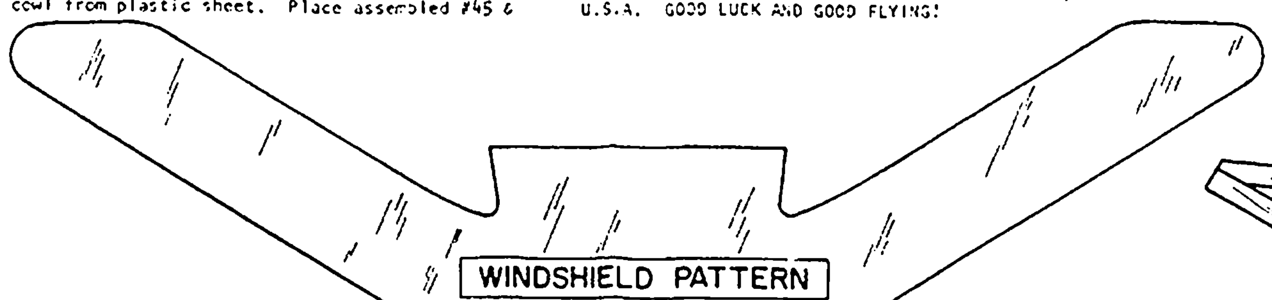
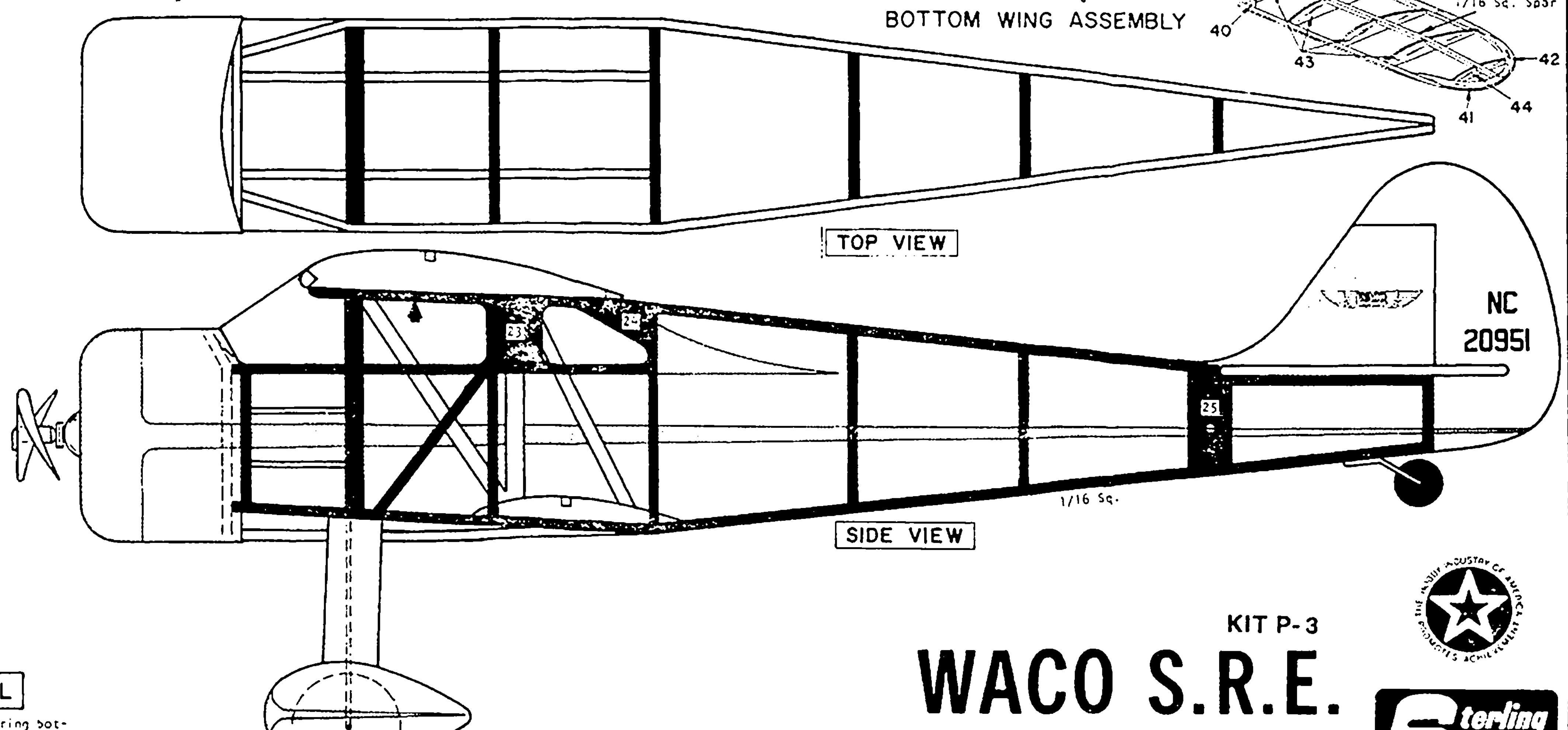


Photo Of Framework Shows Fine Detail



WING STRUT DETAIL

Cut 1/16" x 1/8" strips to length, tapering bottom as shown. Pin and cement together over full size plan. When dry sand smooth, rounding corners. Make two assemblies.



KIT P-3

WACO S.R.E.

PEANUT
SCALE
RUBBER POWER

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