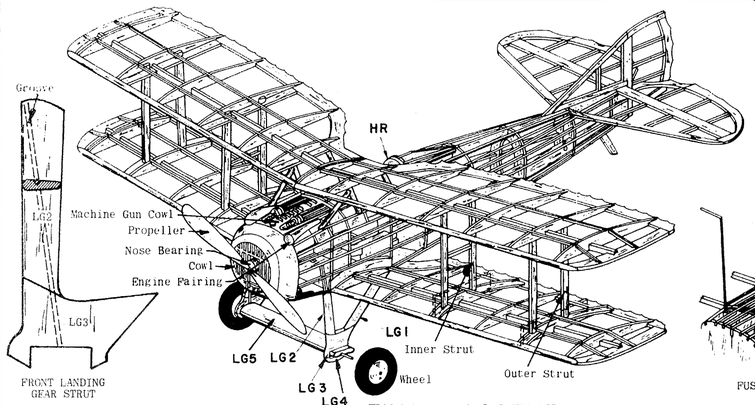
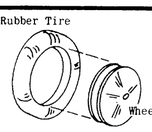
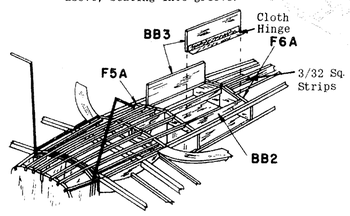
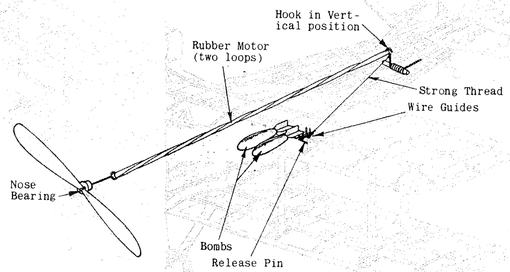


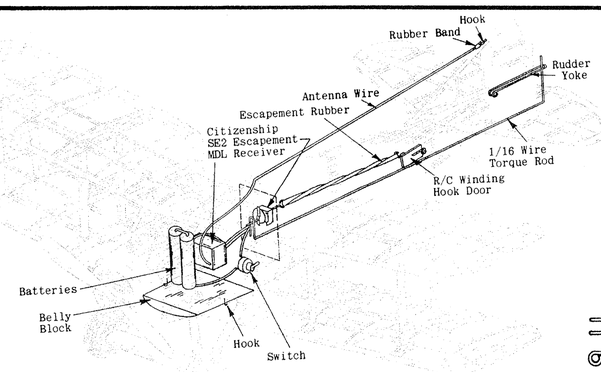


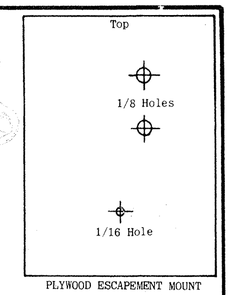
Insert red wheel hubs firmly into rubber tires as shown above, seating into groove.



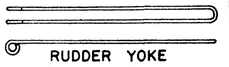
FUSELAGE VIEWED FROM BOTTOM







PLYWOOD ESCAPEMENT MOUNT



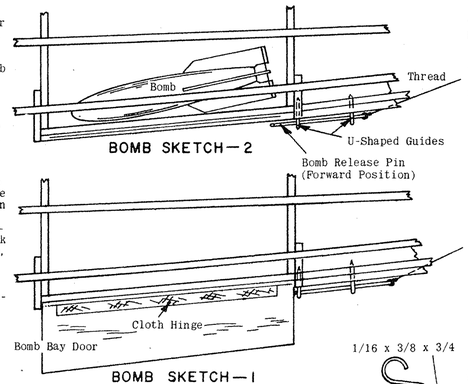
RUDDER YOKE
Bend from 1/32 Wire

FINAL ASSEMBLY

Assemble and trim all plastic parts, see detail note. Cement plastic machine-gun cowl in place from F1 to F3 and adjoining stringers. Cement cowl to F1. Cement stabilizer horizontally to top rear of fuselage against F8. Cement rudder to top of stabilizer and L2, against rear of fuselage. Cement lower wing in place on bottom of fuselage, lining up double ribs with fuselage sides. Check that both tips are same height from flat surface. Lower wing must be dry before proceeding. Trim out notches in all gussetts in both wings. Make strut assemblies as described in detail note. Securely cement bottom of wing struts (not WS2's) into notches in lower wing. CAUTION: Push down firmly until WS2's rest on wing for proper incidence, otherwise model will not fly. When struts are dry, put top wing into position on struts, pressing down firmly until wing is seated on WS1's. CAUTION: Wing must rest on WS1's for proper incidence, otherwise model will not fly. Cement top of struts only. Assembled center struts are cemented on each side. Top fits into notch in A, bottom rests on stringer above supports J & K. Cement rear strut ST4 into notch in B and stringer above rear J. Complete fuselage below lower wing by cementing F5A to front of F5 and F6A to rear of F6. Cement 1/16 sq stringers in place as shown. Be sure to cement a 1/16 stringer on both sides, 1 3/8" in from rib WS providing a 1/8 space for rear landing gear strut, where it enters fuselage for shock travel. Cement BB2 on each side from F5 to F6 as shown, flush with surface. Place bomb bay doors BB3 in position and cement cloth tape (hinge) half over door & BB2 as shown. Cement a 1" length of 3/32 sq strip to each side of L4, flush and against F6A. Cement HR to front of headrest then round off edge. It is necessary to have access to rear hook to replace rubber motor. Cut out stringer immediately above side keel L5 on right side, between F7 and F8. Fit a piece of 1/16 Balsa into space. Cement cloth tape to top (half over door and half over fuselage) to act as hinge. Cement a strip of 1/16 sq to side keel L5 to act as stop to keep door flush with surface. Hold bottom with Scotch Tape. Use two generous coats of cement on all strut attachments, allowing drying time between coats. When absolutely dry, remove WS1 & WS2 from struts. Complete bomb dropping mechanism as described in detail note. Make double layer spreader bar by cementing two LG5's together. When dry, round off to cross-section shown on side view. Make two landing gear strut assemblies, cementing LG2 to LG3 over full size drawing above. When dry, sand to streamline shape shown and groove inside of strut (ball point pen or similar pointed object) to depth of landing gear wire at exact position shown on drawing. Struts are then cemented in place, wire in groove now flush with surface. Notch ends of spreader bar so landing gear axles are centered and top of spreader bar rests against LG3's. Add LG4's to bottom. Rear strut LG1's are inserted in fuselage opposite end is securely cemented to top of LG3 as shown. Use two heavy coats of cement and allow to dry thoroughly. Cover with tissue for added strength. Top of LG1's remain free for shock absorbing travel. On engine powered models, make landing gear struts from hardwood. Model is now painted. If it is to be painted scale colors, see three-view drawing or box top. For best flight performance, use a minimum of color dope. Apply decals by dipping in water and sliding off into position shown. Cut instrument panel from plan and cement to rear of F4 in cockpit. Cement windshield to fuselage in front of cockpit; cement pilot in cockpit; cement engine fairings to sides of fuselage. All installations are shown in sketch and on side view. Outlines of scale control surfaces can be drawn on with India Ink. Slip rubber tires on wheel hubs. Place wheels on axles. Secure by bending up end of axle or with drop of cement or solder. Insert straight end of propeller shaft thru rear of nose bearing. Slip on two washers provided and insert shaft thru back of free-wheeling propeller. Bend about 1/4" of shaft at right angle as shown on side view. Make two loops of rubber. Insert rubber thru rear door and engage in rear hook. Slip remainder of rubber into fuselage and shake down towards nose. Make hook on end of a piece of wire. Slip thru hole in cowl and capture rubber on hook. Pull thru cowl and engage prop shaft. Nose bearing fits into center hole in cowl. Your Spad XIII is now completed. See flight instructions before flying model. GOOD LUCK AND HAPPY LANDINGS!!!

AUTOMATIC BOMB RELEASE

Bomb dropping is operational in flight, on rubber powered models only. Installation is simple and action is positive, if directions are followed carefully. Bend two "U" shaped guides from straight pins, using pattern provided. Make bomb release pin from 1/32 wire, using full size pattern. Cement the two guides in place to bottom of fuselage, see Bomb Release Detail Sketch 1. Assemble bomb as described in Plastic Parts Detail. Tie a length of strong thread securely to rear hook in position shown in Sketch 1; hook in vertical position as shown on side view. Coat knot with cement. Insert thread thru hole in stiff paper lower-fuselage-cover. Insert bomb release pin thru guides & securely tie thread to end. Front of release pin is against front guide as shown. Thread should be snug when release pin is in this position. Coat knot on release pin with cement. This completes mechanism. To operate, wind rubber motor. This will pull rear hook forward from a vertical to a horizontal position, loosening thread. This now permits release pin to go forward past front guide under bomb bay doors, to position shown in Sketch 2. Place bombs in compartment and close doors, sliding release pin under them until line is snug. Bombs are now loaded. Model is now released and towards the end of the flight when motor unwinds, rear hook pulls back into a vertical position, tightening line. This pulls release pin back, allowing doors to open and dropping bombs. GOOD HUNTING!

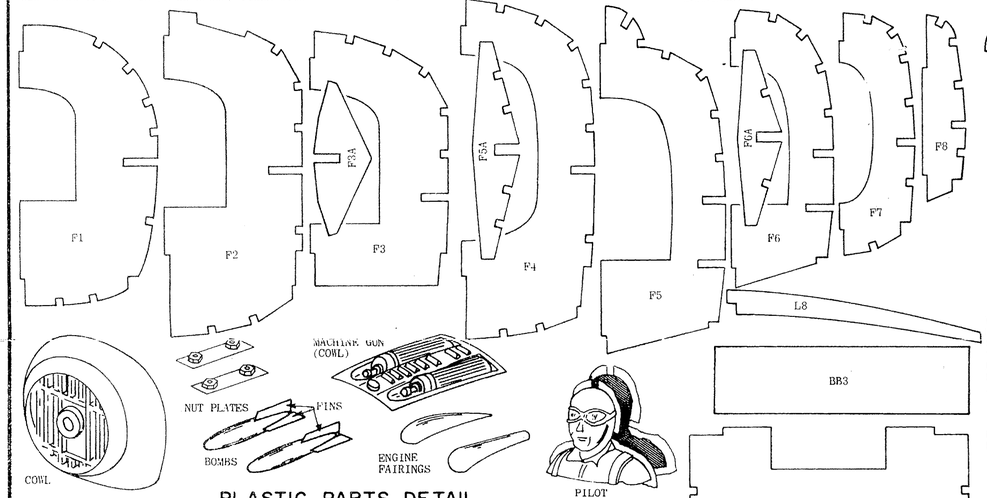


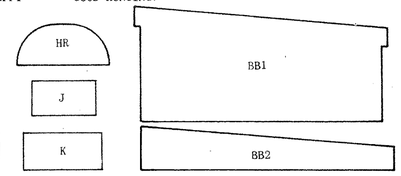
BOMB SKETCH—2

BOMB SKETCH—1

RADIO CONTROL INSTALLATION

Test models used, and drawing shows, Citizen-Ship MDL Receiver, SE2 Escapement, used with SPX Transmitter. This equipment and other material necessary is not provided in kit. Radio is installed after lower wing is cemented in place as described in Final Assembly. Access to R/C equipment is thru removeable belly block fitted to bottom wing. Cut out the 1/16 sq spar across center section. Fit soft Balsa belly block between F2 & F4 and shape to fit fuselage as shown in sketch. Bend hooks from pins & cement on either side as shown. Rubber band across hooks keeps block in place. Cut rudder apart at location shown by dotted lines, and assemble with cloth hinges. Bend wire yoke from 1/32 wire, install on rudder with 2/56 nut & bolt. Cut escapement base from 1/16 plywood and mount escapement, then cement to front of bulkhead F5 as shown. Cut a 3/32 slot in rear of fuselage for torque rod. Using a length of 1/16 wire at least 18" long, insert thru hole, then bend U in front of wire according to R/C manufacturer's instructions & as shown above. Pull back & engage U in escapement. Bend rear at right angle as shown, to engage in yoke. Cut off wire 3/4" above yoke. Raising and lowering yoke will increase or decrease the amount of rudder movement. Wire all radio equipment together in accordance with R/C manufacturer's instructions. Batteries are stored between F2 & F3. After they have been soldered, line compartment with foam rubber and place in fuselage between F3 & F4. Bend small wire hook for antenna attachment and cement to front of rudder. Bring antenna out of cockpit & fasten to hook with rubber band as shown. When model has been completely 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 wings and tail for warps if any have developed, remove with steam method as described in Covering Instructions. Wait for calm weather for test flights. Field test R/C equipment before flying, as described in manufacturer's instructions. Start engine and THROTTLE DOWN TO 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 fly in straight line and either maintain or slightly lose altitude. If model turns to either side, rudder or engine may be offset to opposite side to achieve a straight flight, which is how it should glide & fly. 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 as adjustments are made, checking R/C controls before each flight. GOOD LUCK & GOOD FLYING!!



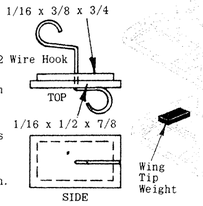


DIE CUT PART NOTE

Die cut parts used in construction are given full size on wing and tail plan or layouts on left and below. Rib cross sections can be used as rib patterns. This enables you to duplicate any part for any reason. Die cut parts in sheet (as in kit) are available from factory as replacements.

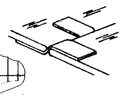
R.C. WINDING HOOK DOOR

Inset 1/16 sheet in area between F7 & F8, from side keel to 2nd stringer above it, (cut out first stringer). When dry, cut out a square hole 3/8 x 3/4. Cement piece (cut out) to 1/16 x 1/2 x 7/8 (grain running cross-wise) as shown, to form door. Bend half of hook from 1/32 wire & push straight end in door - then bend hook on other end as shown in top view. Cement hook securely to door in position shown. Place loop of rubber between escapement and hook on inside of door.



HINGE DETAIL

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



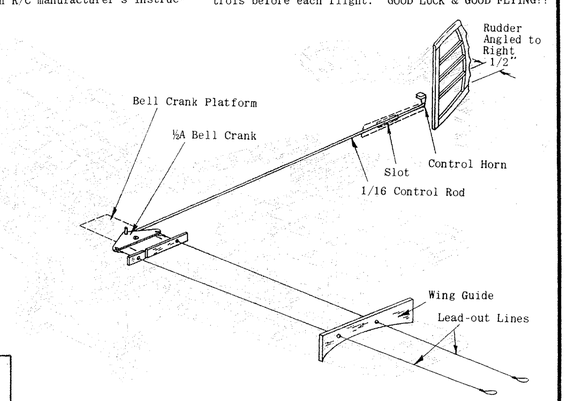
SPAD XIII SPECIFICATIONS AND COLOR SCHEME

Wing Span - 28 Ft. 4 In. -- Length - 20 Ft. 8 In.
Height - 7 Ft. 6 In. -- Wing Area - 215 Sq. Ft.
Service Ceiling - 22,300 Ft.
Maximum Speed - 138.5 M.P.H.
Landing Speed - 59 M.P.H.
Engine - Hispano-Suiza 8 B Ec. 235 Horsepower
Armament - Fixed Twin synchronized Vickers Machine Guns on Cowl (30 Cal.) Two 25 lb. Cooper Bombs used for ground strafing in fuselage behind pilot.

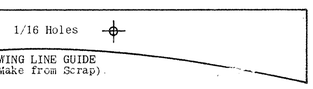
For highly detailed plans, see July 1946 issue of Model Airplane News with W.A. Wylam's drawings.

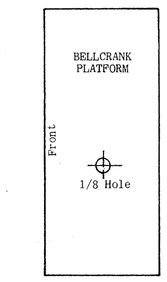
COLOR SCHEME:

Picture on box lid shows authentic camoflage 1917-18 French color scheme. Entire upper & side surfaces were camoflaged. Underneath was light gray. Wing and landing gear struts were natural varnish. Markings varied with the squadron. Authentic decals in kit are famous "Hat in the Ring" Eddie Rickenbacker squadron. Three views show other squadron markings not included in kit.

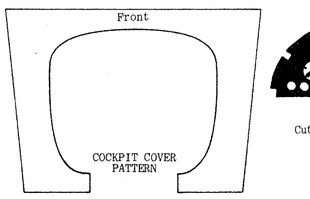


CONTROL LINE INSTALLATION

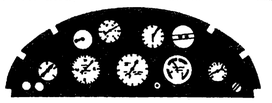




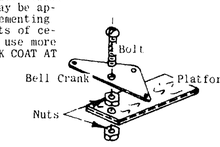
Materials required are not provided in kit. Make bell crank platform from 1/16 plywood, using full size plan above. Securely cement across L5's against rear of F3. Fill in area between F2 & F4, from side keel L5 to stringer above it, with scrap 1/16 sheet Balsa flush with outside of frame. Fill in area from F8 to rear between L5 & second stringer above it in same manner. Cut 1/8 slot in rear for control rod as shown. Cut two 18" lengths of lead-out lines & fasten them to bell crank. Push rod is 1/16 wire at least 14" long. Make a right angle bend at one end. Place in fuselage, insert in bell crank, & mount assembly to plywood platform as described in instructions that come with bell crank. Cut stabilizer in half thru wide main spar as indicated by dotted lines. Round edges and install control horn at location shown on drawing, then join together with cloth hinges shown. Cement stabilizer horizontally into slot in L2 against F8. Tape elevators in neutral positon (in line with stabilizer, neither up or down). Make right angle bend at rear end of control 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 freely and easily. Cut rudder from fin on dotted lines shown on full size drawing. Cement rudder back on fin with rear of rudder turned at angle 1/2" towards outside of circle flown as shown. Clear for elevator movement and cement vertically to top of L2 and against rear of fuselage. Assemble wings to fuselage as described in Final Assembly detail. Make wing guide from 3/32 Balsa, drilling holes indicated. Cement securely to bottom wing against struts as shown. Reinforce holes for lines in fuselage and wing guide with washers or eyelets. Thread lines thru holes in wing guide & tie loops in end of lines at least 3" past wing tip. Lines must be of equal length when elevator is in neutral position. Control system must operate freely and easily. CAUTION: Model must balance (or slightly nose down) at point shown on side view. If necessary, add weight. Use regular 1/2A control lines & handle when flying your French Spad XIII-C. GOOD LUCK!!! GOOD FLYING!!!



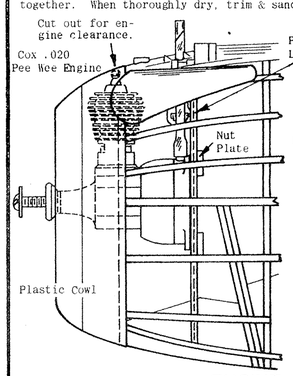
CAUTION:
Do not fly control line models in the vicinity of electric power lines!

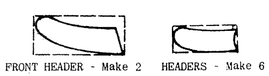


INSTRUMENT PANEL
Cut from plans and cement to F4.



CONTROL ASSEMBLY





EXHAUST STACK DETAIL

Using 1/4 sq Balsa, cut two exhaust stacks to length and taper end as shown on side view. Using 1/4 x 3/8 Balsa, cut 2 short, and 6 long header stacks from full size pattern above. Cement front header to stack and allow to dry thoroughly, then round off. Round off header stacks, bevel ends and cement to exhaust stack at location shown on side view. Be sure to make a left & right assembly. Cement to either side of fuselage as shown on side view, beveling headers to fit fuselage. Paint black.

ENGINE INSTALLATION

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 Cox..020 Pee Wee Engine, however, any other similar engine may be used. Entire fuselage, or front back to F5 should be covered with 1/32 or 1/16 sheet Balsa. Top is cut out for engine clearance. Engine is installed on die cut 1/16 firewall provided in kit. Carefully drill 1/8 holes at punch marks. Mount engine to firewall with #2 nuts & bolts, tightening nuts securely. Cut plastic nut plates from molded sheet & securely cement to back of firewall over nuts, drilling hole so that bolts can protrude. Use cement generously. Nut plate keeps nuts from turning so that engine can be removed by just unscrewing bolts. When dry, remove engine. Securely cement firewall in position shown. Cut molded machine gun and engine cowls from plastic sheet as described in detail note. Cement machine gun cowl to top of fuselage from F1 to F3; engine cowl to front of fuselage on F1. Trim engine cowl and F1 to clear engine. Drill three holes in machine gun cowl, in position indicated by dotted line on fire wall drawing, for needle valve extension & plastic fuel tubing. Remove cowl then add a 1-1/4 length of 1/16 I.D. plastic tubing to each tube adjoining needle valve. Cut top of tubing at angle facing forward for easy admission of air stream. Make needle valve extension. Cut 3/4" length of 1/8 I.D. tubing and force over head of needle valve. Cut a 1-1/4" length of 1/8 dowel & insert into tubing. This should be tight fit. Needle valve can now be adjusted without removing cowling. Cowl is cemented or held in place with small wood screws. If it becomes necessary to remove engine for any reason, break cement joint of cowl. Engine is then reinstalled and cowl recemented or screwed back in position.

PLASTIC PARTS DETAIL

For best results, follow instructions carefully. COWL: Cut from sheet leaving about 1/16 of material for trim. Excess material may be trimmed with knife or razor blade and then sanded with fine sandpaper. Engine cowl is placed on bulkhead F1 for support while sanding. MACHINE GUN-COWL: Cut from sheet. Trim to fit and cement to top of fuselage from F1 to F3. PILOT: Leave about 1/8 excess material when cutting halves from sheet. Carefully trim out slots about 1/8" wide on top, bottom & ends, right to the edge of the pilot as shown. This will permit accurate assembly. Cement halves together, lining up carefully at slots. Use cement sparingly, however, since excessive use may distort the plastic. After assembly, allow to dry thoroughly, then trim and sand off smooth. BOMBS: Cut out of sheet in same manner as pilot, making notches in excess material for assembly. Cement halves together. When thoroughly dry, trim & sand smooth, then cut out 4 bomb fins each, which are scribed in plastic sheet. Cement fins to ends of bomb at right angles, along seams as shown. NUT PLATES: Cut from sheet right along trim line and install as described in Engine Installation. ENGINE FAIRINGS: Cut from sheet & trim as shown above. PAINTING: Regular plastic model paint or enamel can be used. Model airplane dope can be used only if applied in LIGHT spray coats, allowing paint to dry thoroughly between coats. Excessive use of dope may deform plastic. Parts may be used red as provided or if painting parts a lighter color than red, apply a light coat of silver, followed by a light coat of white before painting final color. Darker paints may be applied directly to red plastic. When cementing parts in place on model, use light coats of cement applied sparingly. If necessary, use more than one coat, but DO NOT APPLY A THICK COAT AT ANY TIME!

FLIGHT INSTRUCTIONS

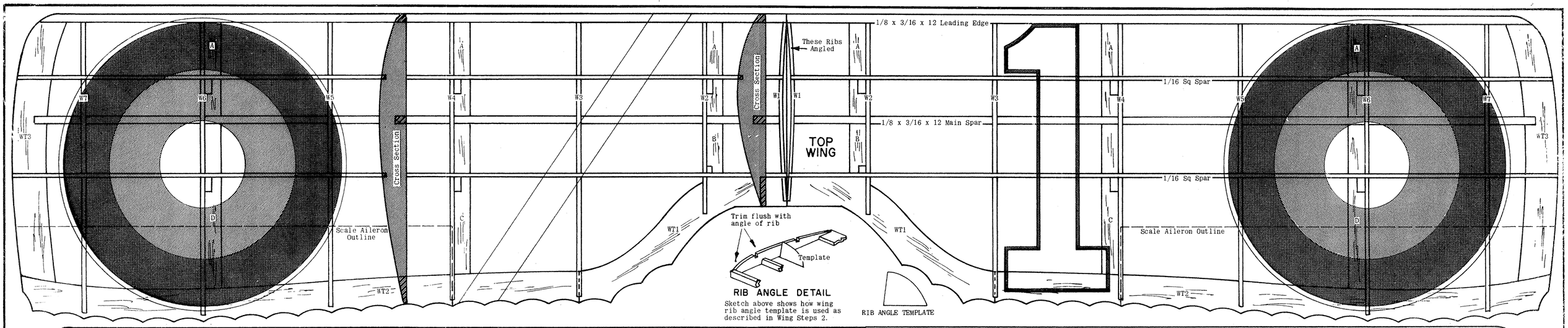
When model has been completed, it must balance at point shown on side view. DO NOT ATTEMPT TO FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED, add weight if necessary. Check wing & tail. If warps have developed, remove using steam method described in Silkspan Step. Model is now ready. Pick a calm day for test 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 ft. ahead of you. If model noses up & then falls off & 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 & 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 3 to 5 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 & 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!!!

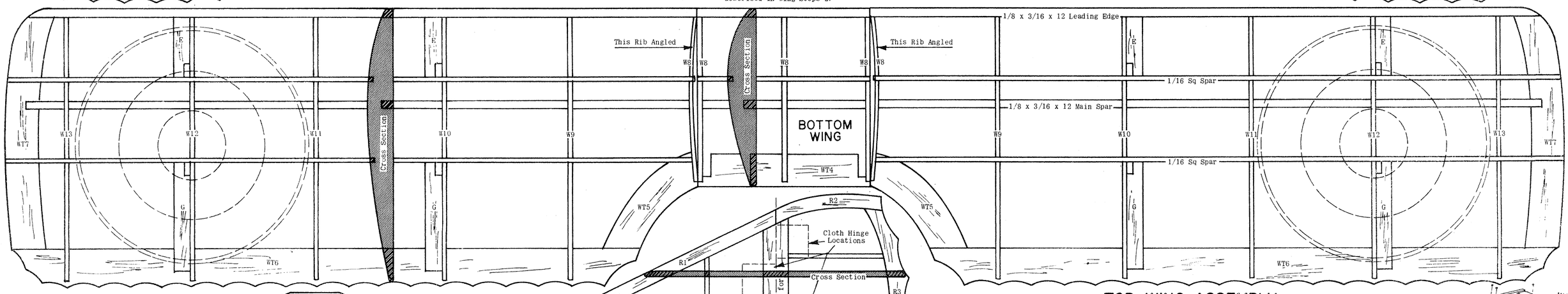
SPAD XIII

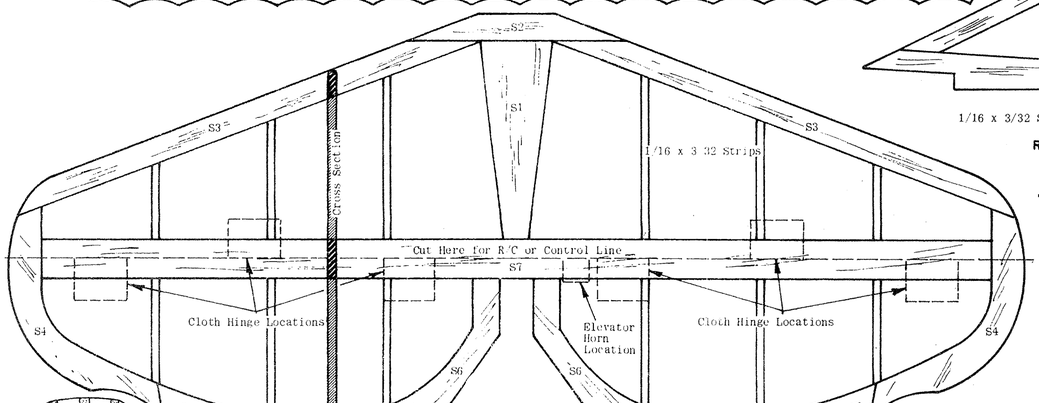
Sterling MODELS
PHILA.PA.USA

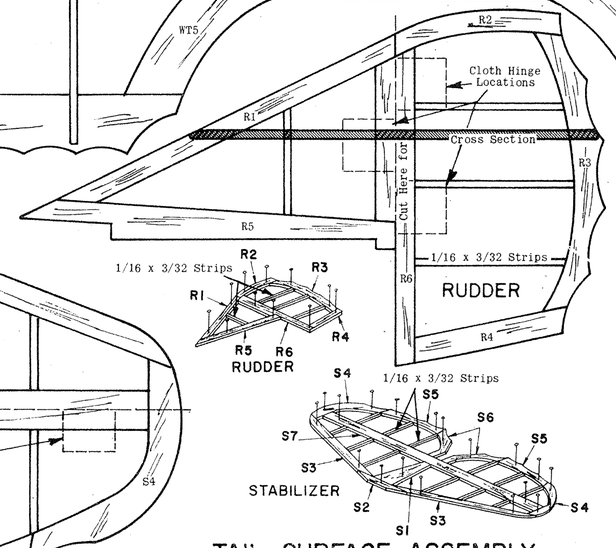
KIT A21
WING SPAN 24"

N11AJGM20







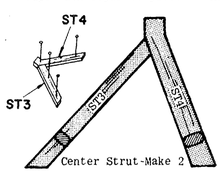


TAIL SURFACE ASSEMBLY

Assemble stabilizer by pinning all S parts to plan on flat surface as shown, cementing them to each other where they join. Cut 1/16 x 3/32 strips to fit & cement in place upright. Rudder is built in same manner, pinning all R parts to plan & cementing to each other, then adding 1/16 x 3/32 strips. Allow assemblies to dry thoroughly on flat surface, then sand smooth, rounding edges (except R6 and bottom of R5) as shown on cross-section. If model is being constructed for control line or radio, see respective detail notes BEFORE covering with tissue.

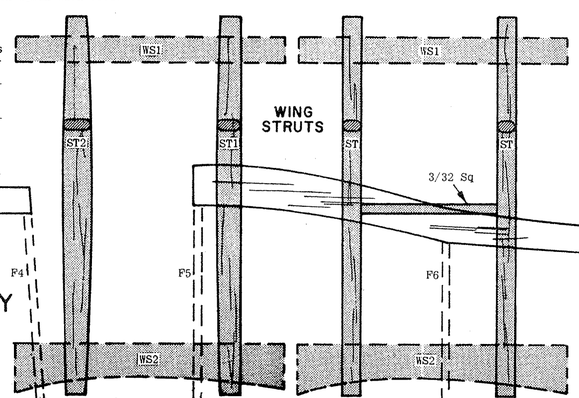
SILKSPAN TISSUE COVERING

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 a tight, smooth surface. Follow directions for a smoothly covered warp-free 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, plus 1/4" over size. Place tissue on flat surface and dampen with moistened cloth by dabbing. Apply a second coat of clear dope, then place moistened tissue on frame. Pull tissue gently with fingers, working out all wrinkles. WHEN COVERING WINGS AND TAIL SURFACES, PIN FRAMEWORK TO FLAT SURFACE TO PREVENT WARPS AS TISSUE DRIES. Cut out any wrinkled areas (bound by nearest framework) and re-cover. Apply 2 or 3 coats of clear dope, cut 50/50 with thinner; to wings and tail surfaces before assembling, pinning on flat surface to prevent warps. COVER BOTTOM WING FIRST: Cover entire bottom in 3 pieces, one each for center and tip sections. Cover top in 3 pieces from dihedral joint to tip ribs W13 then the center section. Cover tips with separate pieces. On control line models, add 1/2 oz. weight to lower wing tip on outside of circle flown (see C/L detail). COVER TOP WING NEXT: Top wing is covered in same manner as bottom wing. COVER STABILIZER AND RUDDER NEXT: Cover both sides of each in one piece. Install bomb dropping mechanism (see detail) before covering fuselage. COVER FUSELAGE NEXT: Cover sides front to rear, from 3/32 stringer to 1/16 stringer under Stabilizer. Cover each side of top back to F4 joining over L1. Cover headrest in halves, joining over L2. Cover each side of top rear joining over L2. After structure under bottom wing is completed as described in Final Assembly, cover bottom in halves. Joining over L4: from F1 to F2; F2 to F5; F6 to rear. Remove tissue from W8 to stringer, thus allowing rear landing gear struts to move in for shock absorbing action. Cut headrest section and cockpit cover from stiff paper using pattern provided and cement in place. Cut stiff paper lower fuselage cover and cement in place from F6 to F7. Apply 4 coats of thinned dope to tissue covering on fuselage. Check wings & 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.



STRUT DETAIL

Assemble two each, all wing struts as shown above on full size drawing. Horizontal strut brace is 3/32 Sq strip. Use cement lightly on WS parts, since they are removed when wings are in place. Install as described in final assembly detail.



TOP WING ASSEMBLY

STEP 1

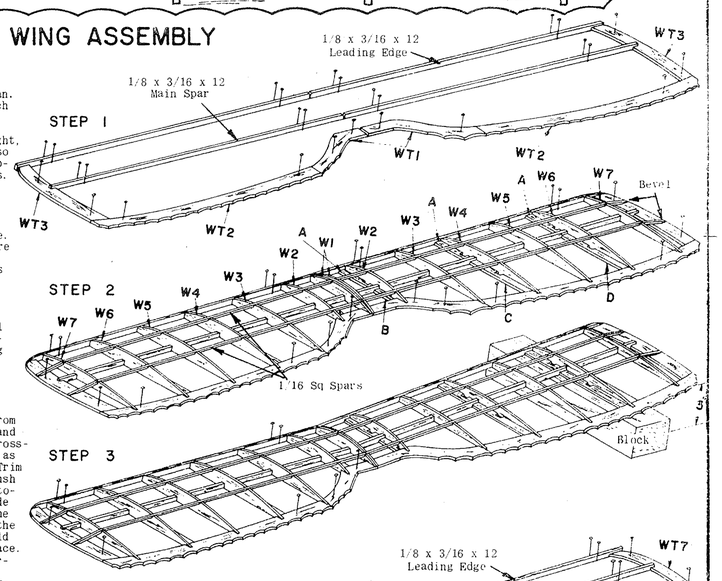
Build wings on flat surface directly on plan. Pin all WT parts in place, cementing to each other where they join, except at center joints. Using 1/8 x 3/16 x 12, cut main spars to proper length. Pin in place upright, cementing to WT3's. 1/8 x 3/16 x 12 is also used for leading edges. Pin in place in upright position, cementing to front of WT3's.

STEP 2

Ribs W1's to WT's are now cemented in place. All ribs are vertical, except W1's 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's, B's, C's and D's 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, overnite recommended.

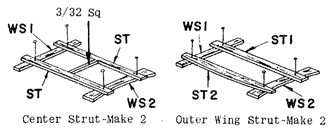
STEP 3

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

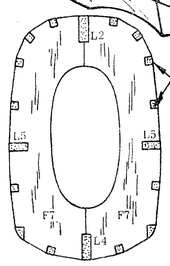


BOTTOM WING ASSEMBLY

Construction, shown in 3 steps, is similar to top wing except for flat center section and that the strut gussetts (E's & G's) are cemented flush with top of ribs. When installing dihedral, pin center section to flat surface & block up tips of outer panels 1-1/4" as shown.



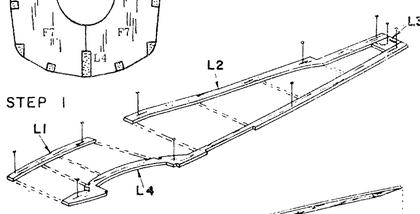
FUSELAGE ASSEMBLY



1/16 Sq Stringers

TYPICAL CROSS SECTION

Fuselage Cross-section at left is at Bulkhead F7. Note that there is only one Fuselage Frame Assembly in center. Bulkhead halves are cemented directly to it - see Step 4.

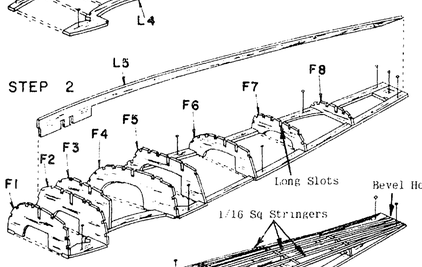


STEP 1

Fuselage construction is started on flat surface directly over plan. Pin L parts in place as shown, cementing L3 between L2 & L4.

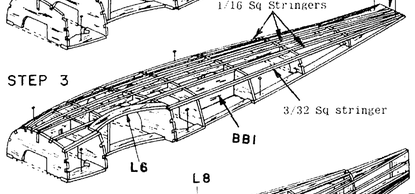
STEP 2

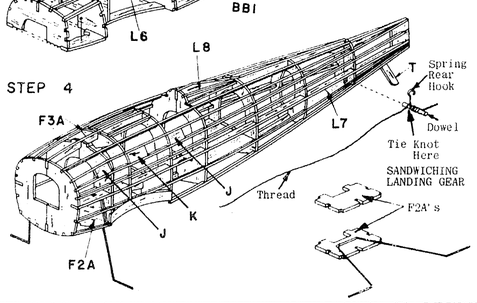
Cement all bulkhead halves from F1 to F8, vertically in place as shown, then add L5, which is inserted into long slots in center of bulkheads.



STEP 3

Pin & cement side keel L6 into notches in corners from F2 to F4. Note 3/32 space left for corner stringer. Cement 3/32 sq stringer into lower corner of bulkheads from F1 to F2 and from F4 to rear. Bevel end to fit. Cement BB1 into notches between F5 & F6. Push all the way down, which leaves 1/16 space for stringer. Cement the rest of the stringers, which are 1/16 sq. into their respective notches, beveling ends to knife edge at rear. Any stringers not visible can be seen in next sketch. Assembly should dry over night to prevent warping or twisting. Construction of wing or tail surfaces can be started in the meantime.





STEP 4

Carefully pull out pins and remove frame from flat surface. Cement opposite halves of bulkheads in place, then add L5. (Don't make another fuselage frame assembly. Bulkhead halves are cemented to fuselage frame assembly already constructed as described in steps 1, 2, and 3.) Landing gear provided in kit is now installed. If model is to be gas engine powered, it is recommended that you obtain a piece of 1/16 dia. music wire and bend a new landing gear to exact shape of one provided in kit. Installation of both are similar, being sandwiched between F2A's as shown in detail sketch. Use cement generously when cementing unit in fuselage at location shown in sketch and side view -- install L6, BB1 and stringers in same manner as opposite side, then add L7's, L8's and F3A. Cement two J's and a K (strut supports) to each side of fuselage as shown on sketch and side view at bulkheads F2, F3, and F4. Install spring rear hook (omit on gas powered models) by inserting 1/8 dowel thru coils of rear hook. Securely tie and cement a 10" length of thread to hook at location shown, then insert & cement ends of dowel between L7's. Push straight end of spring rear hook thru left side of bulkhead F8 beneath side keel L5 and cement securely in place. Only straight end of hook is fastened, leaving coil free for spring movement. Allow fuselage frame to dry thoroughly then sand lightly to present a smooth surface for tissue covering, described in detail note. Bend tail skid from 1/32 wire (see side view for shape) and cement thru pin hole in L4. Cement T into notch and against wire skid. See respective notes for R/C, Control Line, etc. before covering fuselage.