

DETAILED INSTRUCTIONS

Study plans, sketches and instructions carefully before attempting model construction. As only one part of the plan will be used at a time, the remaining portion can be folded over for added reference and study during the process of assembly. The following tools and materials, other than those supplied, are necessary to build this model: A razor blade; a small drawing board; fifty small thin pins; a pair of pliers for bending shaft; some small pieces of sandpaper; and a thin piece of waxed paper 12 x 36".

STEP 1—RE-ENFORCED PRINTED SHEETS • Printed balsa rib sheets are supplied. But, when stronger models are required, plain sheets of white writing paper can be pasted to backs of rib sheets. Apply library paste to paper and attach to back of each rib sheet. Paper re-enforcements eliminate possibility of cracking balsa along the grain. While drying, place pasted parts between two flat surfaces and apply weights to them to prevent warping. Do not remove paper re-enforcements from various pieces after they have been cut from rib sheet.

STEP 2—SANDPAPERING • Obtain a small block of wood and fold sandpaper lightly around it. Rub sandpaper covered block with an outward motion LIGHTLY and SQUARELY on all balsa strips. Avoid rounding edges of square longitudinal pieces.

STEP 3—SPARS, ETC. • Select the correct strips as required on the plan for leading edge, spar and trailing edge. Do this before any notches are cut in ribs so fit will be very close or tight. A close or tight fit requires less cement. Consequently, less weight will be added to the model.

STEP 4—WING—RIBS—WING TIPS • Cut out illustrated ribs and wing tips from printed rib sheets. Begin assembly by working over the wing in the top view. Place a piece of waxed paper over plan to prevent wood parts from adhering to and tearing or soiling plan when they are removed.

Hold down balsa parts with small thin pins. The wings are assembled in two units, namely, right and left panels. Place spars and trailing edges in position. Insert ribs beginning with A, B, C, etc. After all ribs are in place, fit leading edges in position and complete wings by inserting wing tips. Cement all joints carefully.

STEP 5—ELEVATORS AND STABILIZER • The tail is assembled in one unit, namely, stabilizer and elevators. Work over top view. Sandpaper all strips as explained in Step No. 2, before cutting to required lengths. Use waxed paper and pins in assembly. Cut cross members and cross braces to required sizes and cut curved tips from rib sheet. Place cross members and then front and rear edges in position. Pin down firmly. Apply small amount of cement to cross braces and curved pieces before inserting and pinning down into position.

STEP 6—FIN AND RUDDER • Cut parts from printed rib sheets. Assemble rudder in one unit. Work over side view. Rudder is assembled in the same manner as stabilizer. Allow cement to dry before removing from plan.

STEP 7—BODY SIDES • Cover side view on plan with waxed paper. Assemble body sides over side view. Pin down longerons. Put in upright members. Start at front and work toward rear. Cut uprights to size and apply cement to ends before dropping into position. Put in diagonal braces. When dry, remove body side from plan. As two sides are required, replace waxed paper over plan and make another body side.

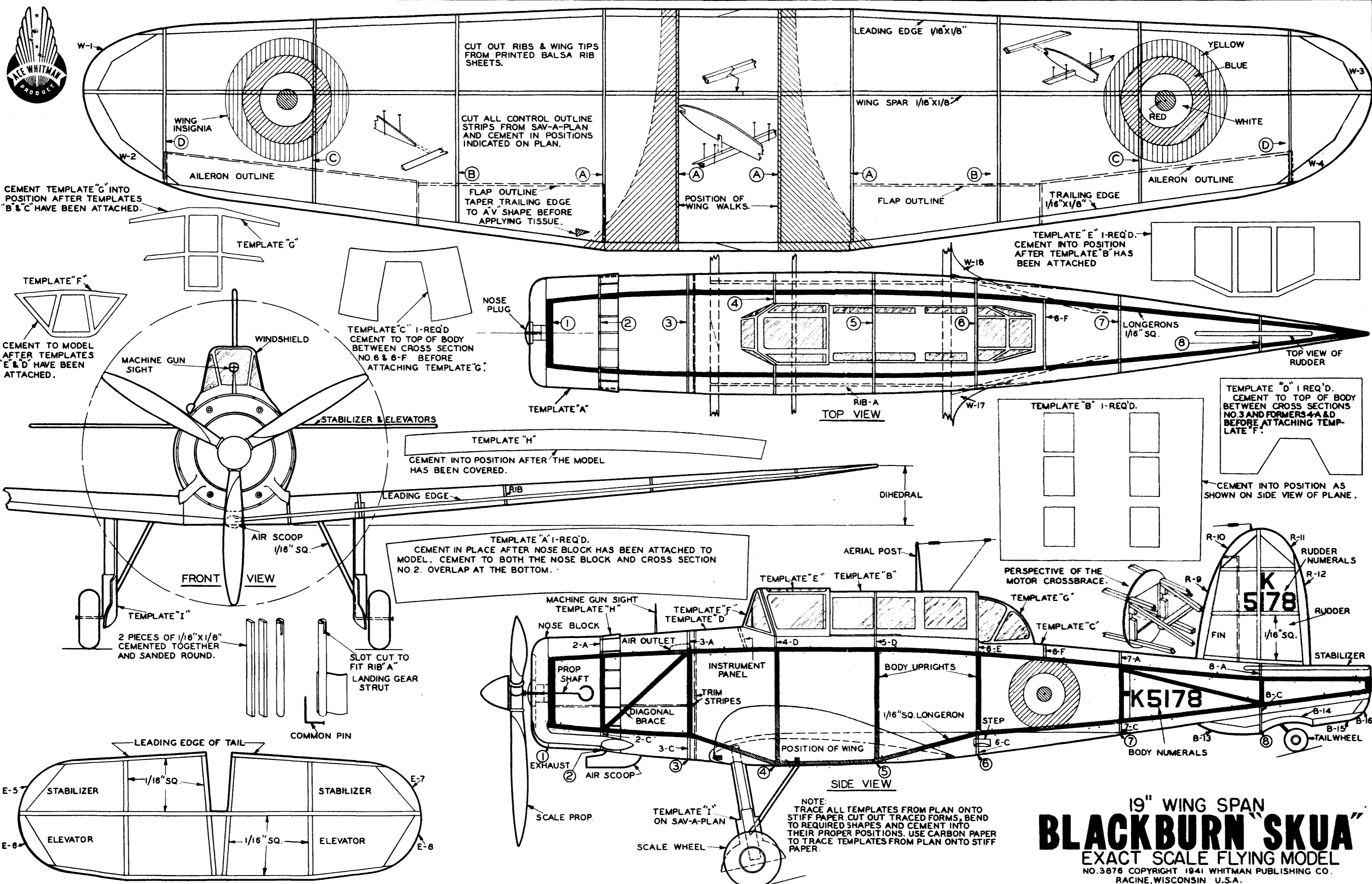
STEP 8—BODY SQUARE • The second body step is the assembly of the two sides into the completed frame. Work over top view. Start by cutting out formers and cross braces. Start at rear and work toward front. Crack or bend longitudinally where necessary. Cement all joints carefully. After all formers and cross braces are in place, check trueness of body along center line. Check corners to be sure they are at right angles and perfectly aligned. Cut out stringer notches. Make them a trifle smaller than the printed outlines to assure a tight fit for the stringers.

STEP 9—BODY STRINGERS • The same kind of materials are used for both longerons and stringers. Smooth with sandpaper, cut to required lengths and cement into positions indicated by NOTCHES IN FORMERS as stringers are purposely not shown on plan.

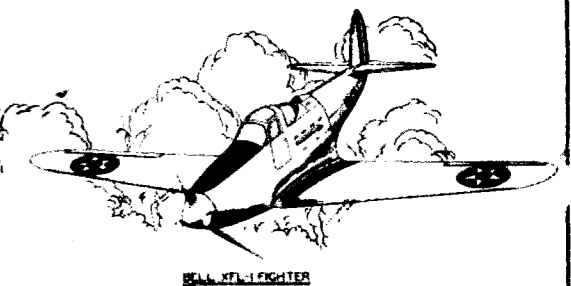
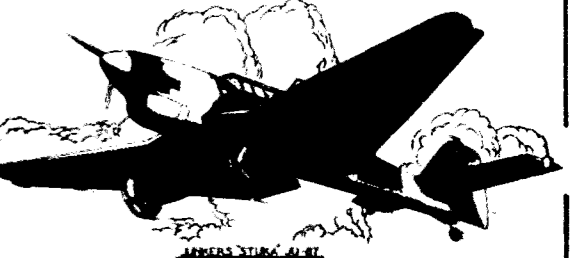
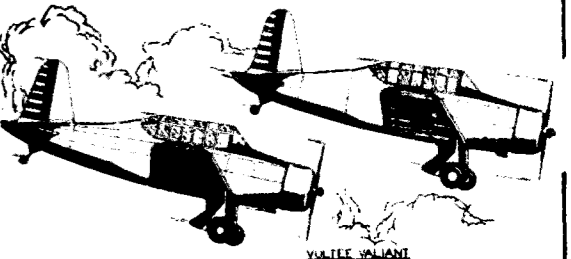
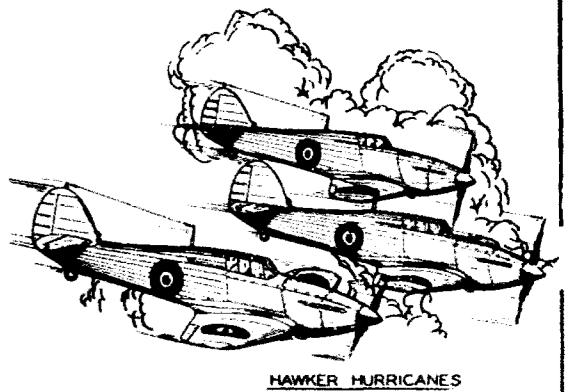
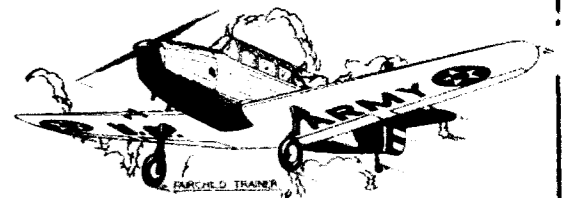
STEP 10—MOTOR COWL AND SPINNER • Trace motor cowl from back of plan onto balsa block. Cut around traced lines to required shape. Drill hole for nose bearing. Sandpaper smooth and cement to front of body. The spinner is made from the thick block. Scribe a circle on one side and cut around this line to obtain the desired diameter. Curve remaining portion to a pointed shape as shown in sketch and various views.

STEP 11—PROPELLER • A machine cut propeller is supplied. However, it is not completely finished. Sandpaper corners and edges round. Propeller must be balanced. Do this by piercing propeller center with a very thin pin which in turn is stuck to the edge of a board, thus permitting propeller to revolve freely. When propeller is properly balanced it will remain stationary, on its shaft, in any position. Sandpaper heavier blade until balance is attained.

STEP 12—BEARING, ETC. • The bearing, shaft and washers are all furnished ready to use. The shaft is placed first through the bearing, then the washers and next through the propeller. Bend shaft over into a "U," pull back into hub of propeller and cement securely. Be sure shaft is aligned properly with blades so they will revolve truly. Tension of rubber motor will hold nose bearing in position. DO NOT cement it to nose. When greater space is needed a small bead may be placed between the two washers.



MODELS AVAILABLE IN THIS SERIES



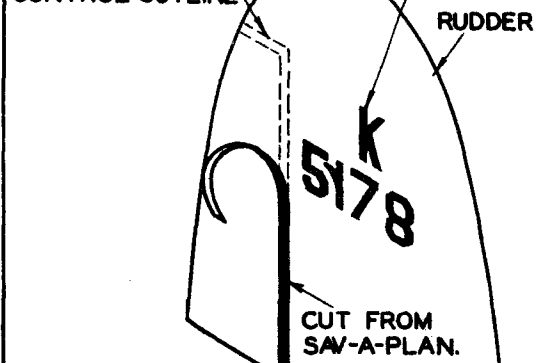
19" WING SPAN
BLACKBURN "SKUA"
 EXACT SCALE FLYING MODEL
 NO. 3876 COPYRIGHT 1941 WHITMAN PUBLISHING CO.
 RACINE, WISCONSIN U.S.A.

CUT CONTROL OUTLINE STRIPS FROM SAV-A-PLAN AND CEMENT IN CORRECT POSITIONS AS SHOWN ON PLAN.

CEMENT OR BANANA LIQUID

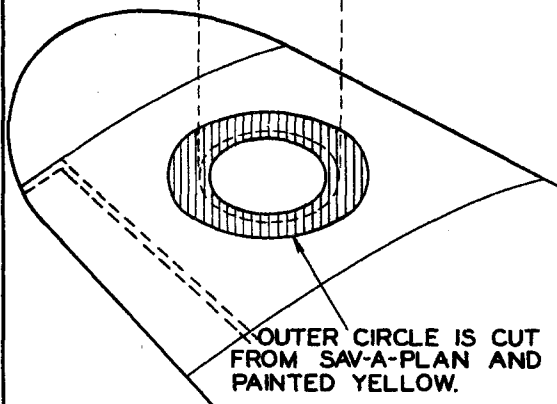
RUDDER NUMERALS ARE CUT FROM SAV-A-PLAN & CEMENTED IN POSITION

POSITION OF CONTROL OUTLINE



CUT FROM SAV-A-PLAN.

WING INSIGNIA CUT FROM EMBLEM SHEET.

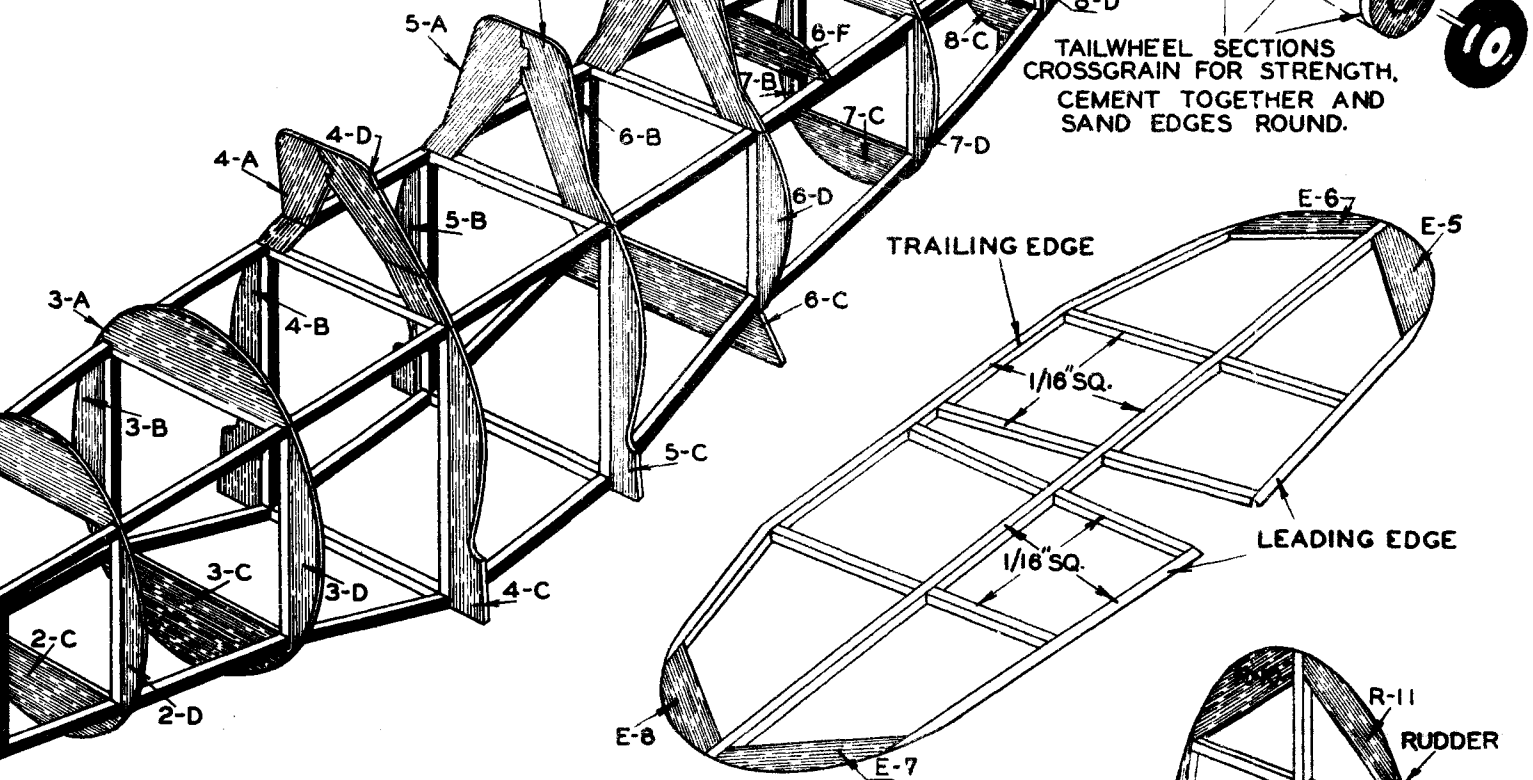
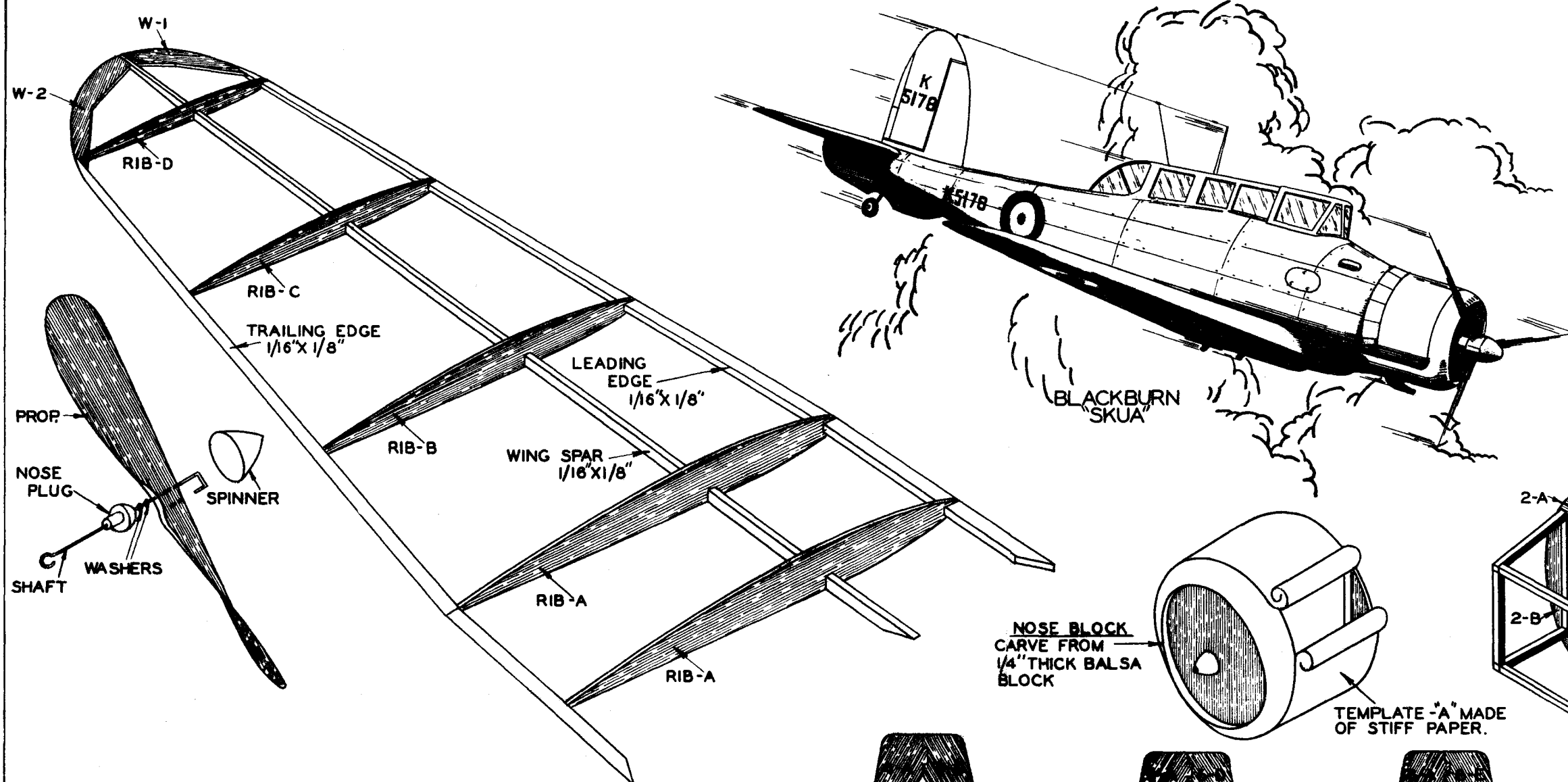


OUTER CIRCLE IS CUT FROM SAV-A-PLAN AND PAINTED YELLOW.

POSITION OF WING WALK

WING WALKS ARE CUT FROM SAV-A-PLAN AND CEMENTED IN CORRECT POSITIONS.

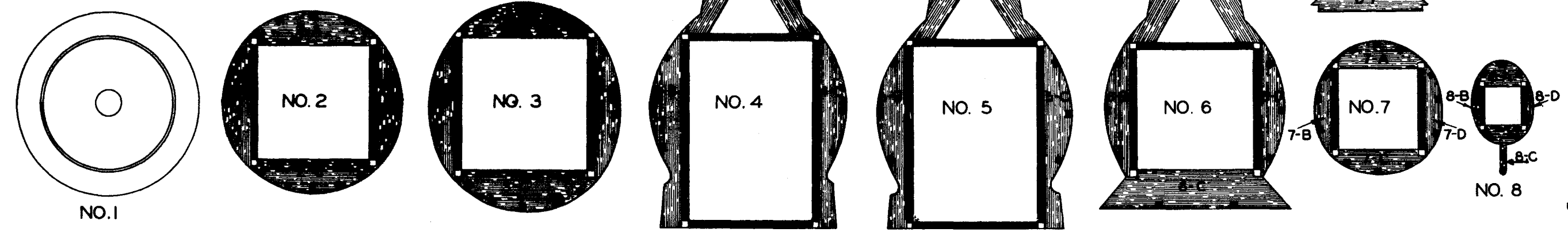
WING FILLET



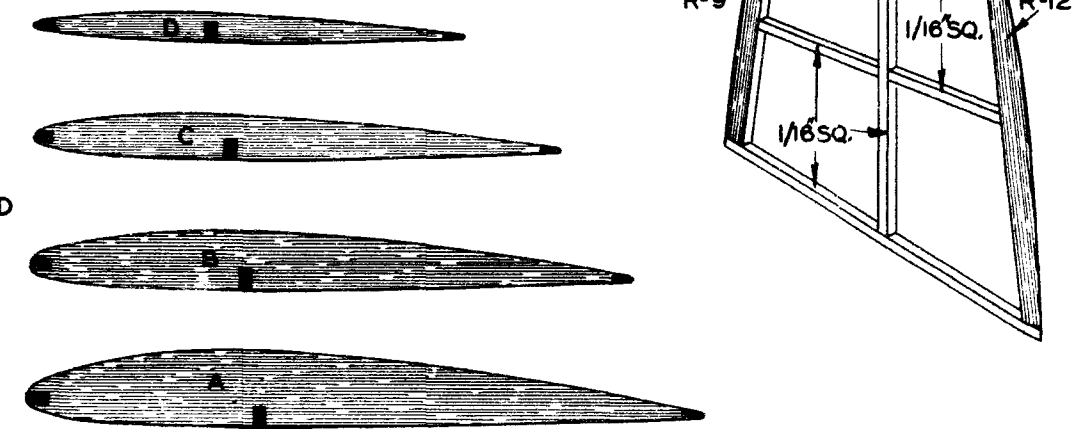
USE A COMMON PIN FOR TAILWHEEL STRUT

TAILWHEEL SECTIONS CROSSGRAIN FOR STRENGTH, CEMENT TOGETHER AND SAND EDGES ROUND.

BODY CROSS SECTIONS



WING RIB SECTIONS



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STEP 13—LANDING GEAR AND TAIL WHEEL • Cement two pieces of 1/4" x 1/4" balsa together to form landing gear struts. Cut to required lengths and sandpaper round. Bend common pins to required shapes for axles and attach wheels. Put all other necessary parts on landing gear unit before attaching to wing panels.

The tail wheel is made from three pieces. Cut them from the rib sheet. Cement the various pieces together and "cross grain" every one. This adds strength and avoids warping. Use straight pin for tail wheel strut. Round outer edges to a tire shape. Do not attach until model has been covered with tissue.

STEP 14—COVERING • All individual parts are to be covered. Cover wings and elevator on top side only and remaining parts all around or on both sides. Sandpaper all rough edges and make all corners slightly rounded. Fit tissue paper, a section at a time, then apply cement and finally attach tissue and allow it to dry. Cover all pieces completely and apply as much tissue paper in one section as possible without undue wrinkling. With a fine atomizer or insect gun, spray entire covering of framework very lightly with water. To prevent the various parts covered with tissue from warping out of shape, pin them upon some flat surface until dry. Unless the wings and elevator are covered on both sides, do not shrink the covering on these parts as it is apt to warp them.

When shrinking tissue on rudder, wet BOTH sides at the same time, pin down and allow to dry thoroughly. This gives the rudder a smooth tightly stretched covering. When parts are completely covered and dry they are ready for decorations.

STEP 15—DECORATIONS (Controls) • Control outlines, pilots and instrument panel are printed on back of plan. Pilots' heads must first be cemented together and then inserted in cockpit. Insert instrument panel and control outlines in their proper positions.

STEP 16—ASSEMBLING • When all individual parts are complete they are ready for final assembly. Cement elevator and rudder into positions shown and allow cemented joints to dry thoroughly. Cement landing gear units on wings and then cement wings into position shown in side view. Block up wing tips to produce proper dihedral and allow cemented joints to dry. Be sure everything is aligned properly.

STEP 17—SCALE PROPELLER • Views of the scale propeller are shown on front of plan for those who do not wish to use the two-blade propeller supplied.

STEP 18—MOTOR • A large rubber band is supplied. Attach rubber motor between propeller shaft and rear motor brace as shown in side view. A small opening in the tissue covering is required at rear of ship for inserting rubber motor.

STEP 19—FLYING • When model has been completely assembled it must be checked for center of gravity balance BEFORE a trial flight is attempted. Place forefingers at the midpoint of the wing tips and lift model to see whether it balances. Tacks or pins can be inserted into front or rear of model to produce proper balance. When plane remains horizontal, while suspended on finger tips, it can be considered balanced. A few short trial glides should be made AFTER the model has been properly balanced (not before). To be certain that model is correctly balanced, hold it, unwound, in position for launching and if the glide after leaving the hand is steady and consistent and goes forward 10 or 15 feet, ship can be considered as making a normal glide.

Model is now ready for its trial flight. Launch it with the nose pointed slightly downward which permits gravity to take effect. Before trying a powered flight it is advisable to test motor by winding propeller with right forefinger. Permit rubber motor to unwind completely. At this time check trueness of propeller rotation. While turning propeller and thus winding rubber motor, hold model firmly by its nose block. The proper number of turns for rubber motor is attained when its coils or twists are fairly small or tight.

STEP 20—SAVE YOUR PLAN AND COLORED PORTRAIT ON BOX • Although your model is finished your plan proper is still complete or intact. That is, no parts or templates should have been cut from it. Therefore, it can be looked over for small, possibly forgotten details. Sav-A-Plan can now be filed away for future reference.

As colored portrait on box is suitable for framing, cut out and preserve it.

USE BLACK LINES TO OUTLINE ALL CONTROLS.

K5178
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BODY & RUDDER NUMERALS

WING WALKS

TEMPLATE 'A'

DUMMY MOTOR

PILOT

FRONT OF AIR SCOOP INSTRUMENT PANEL

GUNNER

YELLOW OUTER CIRCLE

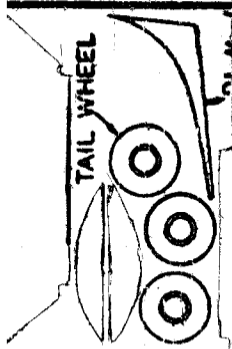
YELLOW OUTER CIRCLE

YELLOW OUTER CIRCLE

YELLOW OUTER CIRCLE

YELLOW OUTER CIRCLE

As colored portrait on box is suitable for framing, cut out and preserve it.
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BLACKBURN "SKU" SHE
NO. 3878

