LEADING EDGE 5/8" x 3/4" x 14" (IF TWO PIECE) OR 28" ONE PIECE

W9 3/16" BALSA MAKE 2

W7

W6

W5

W4

W3

W2

W1

1/8" x 1/2" x 3 1/2" KIT 4E JOINER

HARDWOOD BELLCRANK MOUNT 3/16" x 1/2" x 4"

WING TIP LIGHT

W9 3/16" BALSA

TRAILING EDGES 1/4" x 7/8" x 14"

1/8" BALSA STABILISER

1/8" BALSA ELEVATORS

INSTALL 1/8" x 3/16" x 10 3/4" ELEVATOR SPAR

ELEVATOR CONTROL HORN 1/8" PLYWOOD

W6 MAKE TWO 3/32" BALSA

W5 MAKE TWO 3/32" BALSA

W4 MAKE TWO 3/32" BALSA

W7 MAKE TWO 3/32" BALSA

W3 MAKE TWO 3/32" BALSA

1/8" BALSA RUDDER

1/2" BALSA FIN

KIT SUPPLIED SEPARATE CANOPY/TURTLEDECK

SUGGESTION: USE TRIANGLE BALSA SUPPORT REINFORCEMENT CORNERS UNDER STABILISER

3/8" BALSA FUSELAGE

SUGGESTION: MAKE ENGINE MOUNTS 2" LONGER EXTENDING INTO FUSELAGE — STRONGER AND LESS VIBRATION

HARD WOOD ENGINE MOUNTS 3/8" x 1/4" x 2"

TAIL SKID

TAIL SKID 1/8" PLYWOOD

KIT LANDING GEAR PATTERN 3/32" WIRE

SUGGESTION: MAKE L/G SHORTER AND USE LARGER DIAMETER WIRE — KIT L/G AS BUILT IS TOO SPRINGY AND MAKES LANDINGS DIFFICULT

W1 MAKE ONE 3/32" BALSA

W2 MAKE TWO 3/32" BALSA

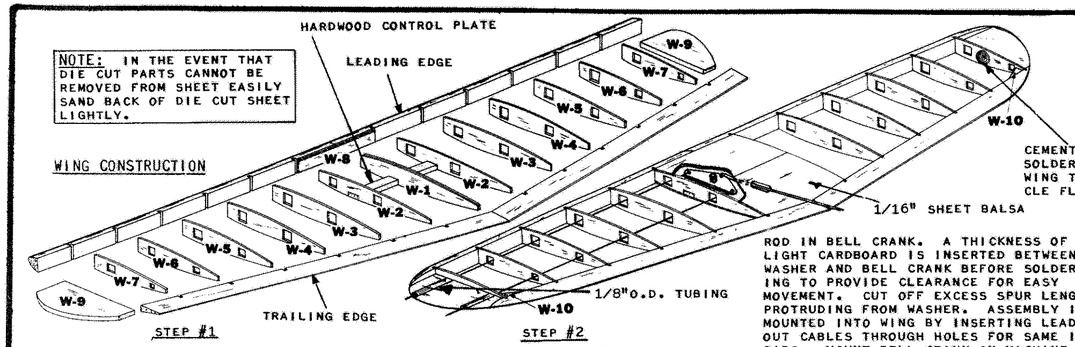
NOSE SIDES 1/8" PLYWOOD MAKE 2

STERLING P-40 TIGERSHARK

KIT No. S-7 .09-.19

NOTE: IN THE EVENT THAT DIE CUT PARTS CANNOT BE REMOVED FROM SHEET EASILY SAND BACK OF DIE CUT SHEET LIGHTLY.

WING CONSTRUCTION

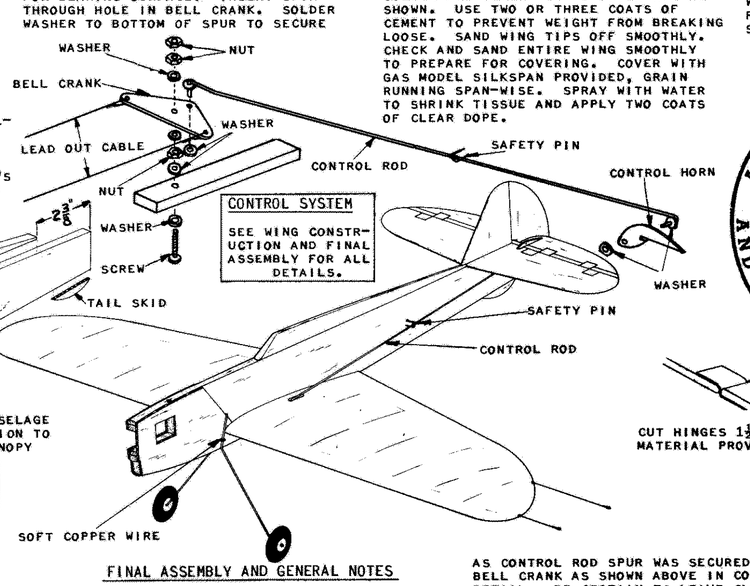


STEP #1

LEADING EDGE IS ASSEMBLED FIRST IN THE FOLLOWING MANNER: APPLY A COAT OF CEMENT TO ENDS AND REAR FACE OF BOTH LEADING EDGES FOR ABOUT 2" ON EITHER SIDE WHERE W8 IS CEMENTED IN PLACE. W8 SHOULD ALSO HAVE A COAT OF CEMENT. APPLY A SECOND COAT OF CEMENT TO ENDS OF LEADING EDGES AND PUSH TOGETHER TIGHTLY. LAY LEADING EDGE ON FLAT SURFACE. BE SURE IT IS STRAIGHT AND ALLOW TO DRY. CEMENT W8 TO REAR CENTER OF LEADING EDGE BETWEEN NOTCHES AS SHOWN IN ABOVE SKETCH. NOTE THAT W8 IS UNDERSIZE LEAVING A 1/16" LEDGE AT TOP AND BOTTOM OF LEADING EDGE FOR CENTER SECTION BALSA SHEET COVERING. CEMENT BOTH W1's TOGETHER. WING IS ASSEMBLED BY CEMENTING RIBS #1 TO #7 INTO THEIR RESPECTIVE NOTCHES IN LEADING EDGE AS SHOWN IN ABOVE SKETCH. APPLY A COAT OF CEMENT TO ENDS OF TRAILING EDGE. TRAILING EDGE IS NOW INSTALLED ON WING FRAME BY SLIDING RIBS INTO NOTCHES IN TRAILING EDGE. A SECOND COAT OF CEMENT IS APPLIED TO CENTER JOINT OF TRAILING EDGE BEFORE IT IS INSTALLED. PINS MAY BE USED IN ANY PART OF THIS ASSEMBLY TO HOLD PARTS TOGETHER UNTIL CEMENT IS DRY. RIBS MUST BE IN LINE WITH EACH OTHER WHEN VIEWED FROM END OF WING. IN THE EVENT RIBS ARE OUT OF LINE THIS MAY CAUSE A WARP IN THE WING STRUCTURE WHICH WILL HAMPER THE PERFORMANCE OF YOUR MODEL. CEMENT WING TIPS W9 IN PLACE. NOTE THAT THESE ARE CEMENTED BETWEEN LEADING AND TRAILING EDGE AND CENTER ON END RIBS W7. CEMENT 3/16 X 1/2 x 3-5/8 HARDWOOD CONTROL PLATE INTO NOTCHES FOR SAME ACROSS THE BOTTOM OF RIBS W1's AND W2's AS SHOWN ABOVE. CHECK STRUCTURE AGAIN FOR ANY WARPS THAT MAY HAVE DEVELOPED. APPLY AN ADDITIONAL COAT OF CEMENT ON ALL JOINTS, AND SET ASIDE TO DRY THOROUGHLY.

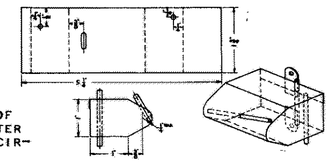
STEP #2

CEMENT WING GUSSETS W10's IN PLACE AT REAR CORNERS OF WING AS SHOWN ABOVE. AT THIS POINT THE CONTROL LINE INSTALLATION IS INSTALLED, AS SHOWN IN DETAIL DRAWING BELOW. DRILL 1/8" DIA. HOLE IN CENTER OF HARDWOOD CONTROL PLATE 3/4" FROM RIB W2 TO RECEIVE MACHINE SCREW HOLDING CONTROL UNIT AS SHOWN. SLIP WASHER OVER MACHINE SCREW AND INSERT THROUGH BOTTOM OF CONTROL PLATE. SCREW IS PERMANENTLY SECURED WITH WASHER AND NUT BEING TIGHTENED FROM TOP. NUT IS SOLDERED IN PLACE TO PREVENT LOOSENING. PREPARE BELL CRANK FOR INSTALLATION BY ATTACHING LEAD-OUT CABLES THROUGH HOLES IN BELL CRANK AS SHOWN BELOW. METHOD OF FORMING LOOP IN END OF CABLE LOOP IS SHOWN IN LOOP DETAIL. CABLES SHOULD BE 18" LONG. USING 1/16" MUSIC WIRE 15" LONG, BEND CONTROL ROD TO SHAPE AS SHOWN ON DETAIL SKETCH. NOTE HOW WIRE IS BENT UP SO THAT SECTION DIRECTLY OVER BELL CRANK IS PARALLEL TO SAME. THIS IS ALSO CLEARLY SHOWN ON SIDE VIEW. BEND FRONT END OF ROD DOWN AS SHOWN, FOR SPUR. SOLDER WASHER TO TOP OF SPUR AS SHOWN FOR BEARING SURFACE. INSERT SPUR THROUGH HOLE IN BELL CRANK. SOLDER WASHER TO BOTTOM OF SPUR TO SECURE ROD IN BELL CRANK. A THICKNESS OF LIGHT CARDBOARD IS INSERTED BETWEEN WASHER AND BELL CRANK BEFORE SOLDERING TO PROVIDE CLEARANCE FOR EASY MOVEMENT. CUT OFF EXCESS SPUR LENGTH PROTRUDING FROM WASHER. ASSEMBLY IS MOUNTED INTO WING BY INSERTING LEAD-OUT CABLES THROUGH HOLES FOR SAME IN RIBS. MOUNT BELL CRANK ON MACHINE SCREW. ADD WASHER AND TWO NUTS AS SHOWN AND TIGHTEN TOWARD EACH OTHER. BE CERTAIN TO ALLOW CLEARANCE BETWEEN WASHER AND BELL CRANK FOR FREE AND EASY MOVEMENT. SOLDER NUTS TO PREVENT LOOSENING. LEAD-OUT CABLES ARE PARALLEL TO LEADING EDGE AND EACH OTHER AS SHOWN ON TOP VIEW OF FINISHED MODEL. WING TIPS ARE NOTCHED OUT TO RECEIVE LENGTH OF 1/8 O. D. TUBING WHICH IS THEN SECURELY CEMENTED INTO NOTCHES. CABLES ARE THEN INSERTED THROUGH TUBING. CHECK SYSTEM FOR FREENESS OF OPERATION BY PULLING ON CABLE EMERGING FROM WING TIP. MAKE LOOPS ON LEAD-OUT CABLES 2" FROM WING TIP. BOTH CABLES SHOULD BE THE SAME LENGTH WHEN BELL CRANK IS IN NEUTRAL POSITION AS SHOWN IN TOP VIEW DRAWING. COVER BOTTOM OF WING BETWEEN RIBS W2's WITH 1/16" SHEET BALSA PROVIDED. IT WILL BE NECESSARY TO NOTCH SHEET COVERING FOR MACHINE SCREW HEAD. COVER TOP IN SAME MANNER. IT WILL BE NECESSARY TO SLOT SHEET COVERING TO ALLOW CLEARANCE FOR CONTROL ROD TO EMERGE FROM WING. COIL UP APPROXIMATELY 1/2 OUNCE OF SOLDER AND CEMENT IT TO OUTER RIB AS SHOWN. USE TWO OR THREE COATS OF CEMENT TO PREVENT WEIGHT FROM BREAKING LOOSE. SAND WING TIPS OFF SMOOTHLY. CHECK AND SAND ENTIRE WING SMOOTHLY TO PREPARE FOR COVERING. COVER WITH GAS MODEL SILKSPAN PROVIDED, GRAIN RUNNING SPAN-WISE. SPRAY WITH WATER TO SHRINK TISSUE AND APPLY TWO COATS OF CLEAR DOPE.



CONTROL SYSTEM

SEE WING CONSTRUCTION AND FINAL ASSEMBLY FOR ALL DETAILS.



GAS TANK ASSEMBLY AND CONSTRUCTION NOTE

TANK MAY BE MADE AS SHOWN OR SIMILAR TYPE MAY BE PURCHASED. TO BUILD TANK, USE APPROXIMATELY .010" THICK SHEET BRASS OR MATERIAL FROM TIN CAN. CUT OUT MAIN BODY OF TANK AS PER DRAWING ABOVE. BEND MAIN BODY ON DOTTED LINES AND SOLDER TOGETHER, CUT 1/8" BRASS TUBING TO LENGTH FOR FILLER AND OVERFLOW TUBES AND SOLDER TO INSIDE OF BODY AS SHOWN. CUT LENGTH OF TUBING FOR FEED TUBE, BEND AT ANGLE AND SOLDER IN POSITION SHOWN. USING DRAWING ABOVE, CUT OUT 2 ENDS AS SHOWN AND SOLDER TO BODY OF TANK. MAKE FASTENING TABS AND SOLDER TO SIDE OF TANK. WHEN TANK IS FINISHED TEST FOR TIGHTNESS, SOLDERING ALL JOINTS WHERE LEAKS APPEAR. TANK IS NOW READY TO BE INSTALLED ON MODEL.

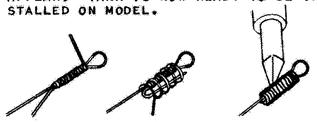
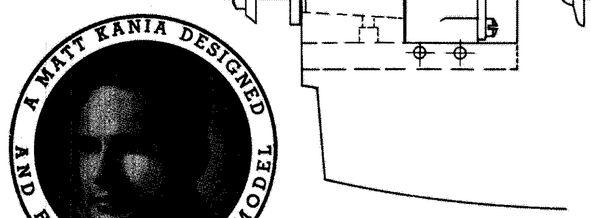
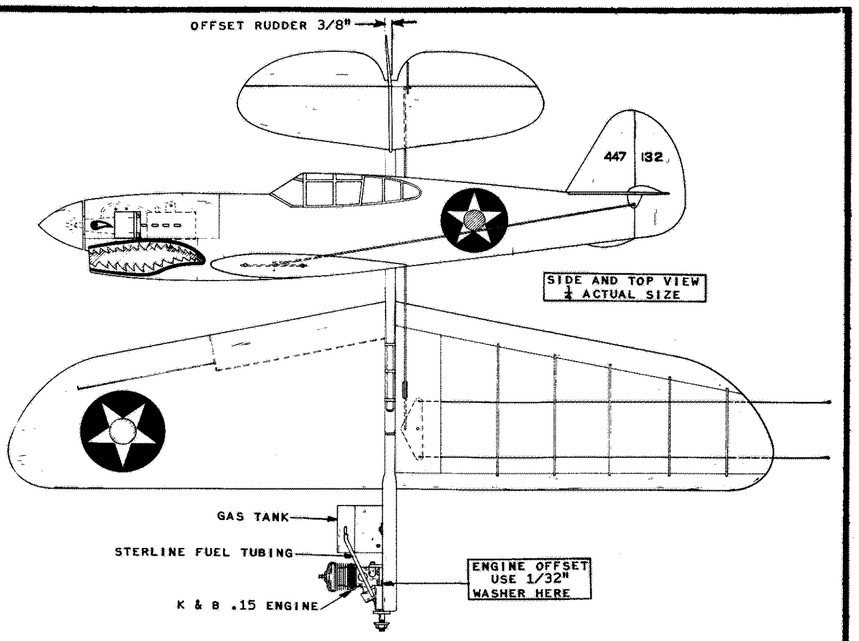


FIG. #1 FIG. #2 FIG. #3

LEAD-OUT CABLE LOOP DETAIL

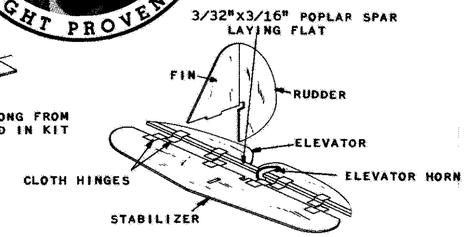
FORM LOOP IN END OF CABLE AND WRAP WITH SOFT COPPER WIRE AS SHOWN IN FIG. #1. ALLOW ENOUGH CABLE TO FOLD BACK AND WRAP WITH WIRE AS SHOWN IN FIG. #2. SOLDER SECURELY AS SHOWN IN FIG. #3.





ENGINE MOUNTING DETAILS

WE RECOMMEND BOTH THE K & B .15 AND THE O. K. CUB .14 ENGINES FOR THE P-40 TIGER SHARK. IF LOWER POWER IS DESIRED FOR TRAINING PURPOSES, WE SUGGEST USING THE O. K. CUB .09 ENGINE.

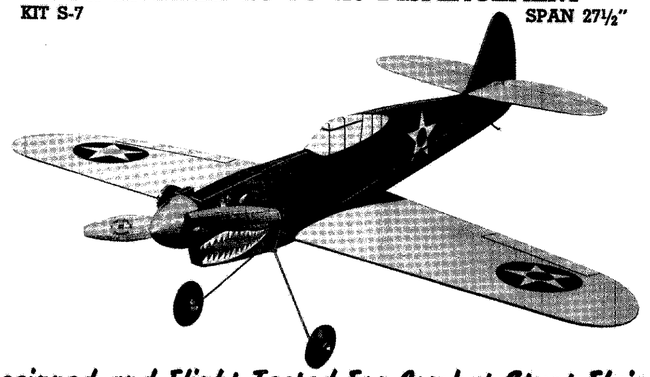


CUT HINGES 1½" LONG FROM MATERIAL PROVIDED IN KIT

CURTISS P-40 TIGER SHARK

FOR ENGINES .09 TO .19 DISPLACEMENT

KIT S-7 SPAN 27½"



Designed and Flight Tested For Combat Stunt Flying

Sterling models

PHILA., PA. U.S.A.

FUSELAGE ASSEMBLY AND CONSTRUCTION NOTE

PREPARE FUSELAGE BY REMOVING DIE CUT WING SECTION FROM SAME. IF DIE CUTTING IS NOT COMPLETELY THROUGH, CUT LIGHTLY WITH KNIFE OR RAZOR BLADE ON REVERSE SIDE OF FUSELAGE ALONG LINES OF IMPRESSION. PLYWOOD SIDES ARE PREPARED FOR INSTALLATION BY APPLYING A COAT OF CEMENT ON SAME AND ALSO FUSELAGE SIDES TO WHICH THEY ARE CEMENTED. ALLOW CEMENT TO DRY THOROUGHLY. SLIP WIRE LANDING GEAR TO THE REAR OF SLOT IN FUSELAGE AS SHOWN. APPLY A SECOND COAT OF CEMENT TO ONE PLYWOOD SIDE ONLY, AND CEMENT TO FRONT OF FUSELAGE AS SHOWN. CEMENT HARDWOOD MOTOR MOUNTS IN PLACE IN SEAT FORMED, AS SHOWN IN DRAWING. WHEN DRY, CEMENT OPPOSITE PLYWOOD SIDE IN PLACE. USE TWO OR THREE COATS OF CEMENT ON ALL JOINTS AROUND HARDWOOD ENGINE MOUNTS. ALLOW TO DRY THOROUGHLY. CEMENT CANOPY IN PLACE 2-3/8" FROM REAR OF FUSELAGE AS SHOWN. ALLOW TO DRY. FOR A GRACEFUL AND STREAMLINE APPEARANCE AS WELL AS INCREASED EFFICIENCY; IT IS ADVISABLE TO CARVE AND SAND FUSELAGE TO APPROXIMATE CROSS SECTION AS SHOWN. THIS IS NOT AN ABSOLUTE NECESSITY, BUT WILL ENHANCE THE BEAUTY AND PERFORMANCE OF YOUR MODEL. BE CERTAIN TO KEEP A FLAT SECTION AT THE TOP REAR OF FUSELAGE BEHIND CANOPY, SINCE IT PROVIDES A FLAT GLUING SURFACE FOR THE TAIL. CEMENT PLYWOOD TAIL SKID SECURELY TO BOTTOM REAR OF FUSELAGE USING TWO HEAVY COATS OF CEMENT.

FINAL ASSEMBLY AND GENERAL NOTES

PREPARE TAIL AS SHOWN IN DETAIL SKETCH AND CEMENT SECURELY TO TOP REAR OF FUSELAGE AS SHOWN USING THREE HEAVY COATS OF CEMENT. BE CERTAIN THAT STABILIZER RESTS SQUARELY ON FLAT TOP PORTION OF FUSELAGE SO THAT IT IS HORIZONTAL, AND THAT THE HARDWOOD STRIP IN ELEVATOR IS AT RIGHT ANGLES (90°) TO FUSELAGE WHEN VIEWED FROM TOP. IN ORDER TO SECURE LANDING GEAR, DRILL THROUGH PLYWOOD SIDES WHERE INDICATED BY PUNCH MARKS. BIND LANDING GEAR SECURELY IN PLACE WITH THIN COPPER WIRE. ADD 1½" TO 2" DIAMETER WHEELS. (WHEELS ARE NOT INCLUDED IN KIT, BUT MUST BE PURCHASED SEPARATELY BY MODEL BUILDER) SLIDE WING INTO FUSELAGE UNTIL IT IS CENTERED IN SAME. WING MUST BE HORIZONTAL. IF NECESSARY TRIM WING CUT OUT TO ACHIEVE THIS. USE THREE HEAVY COATS OF CEMENT TO SECURE WING IN FUSELAGE. ALLOW AT LEAST TWO HOURS DRYING TIME BETWEEN COATS OF CEMENT AND CHECK WING FOR HORIZONTAL POSITION AFTER EACH APPLICATION. ALLOW FINAL COAT TO DRY OVERNIGHT TO INSURE PERFECT ALIGNMENT. SET ELEVATOR AND BELL CRANK IN WING IN NEUTRAL POSITION AS SHOWN IN TOP AND SIDE VIEWS. DRILL 1/16" HOLE THROUGH PLYWOOD CONTROL HORN. CUT OFF LOCKING END OF SAFETY PIN. SLIP CONTROL ROD THROUGH LOOP IN SAFETY PIN, WHICH WILL ACT AS GUIDE. CONTROL ROD IS BENT TO EXACT LENGTH AND SPUR IS INSERTED THROUGH HOLE IN HORN AND SECURED WITH WASHERS IN SAME MANNER AS CONTROL ROD SPUR WAS SECURED IN BELL CRANK AS SHOWN ABOVE IN CONTROL DETAIL. BE CERTAIN TO LEAVE CLEARANCE BETWEEN WASHERS FOR FREEDOM OF MOVEMENT. ENDS OF SAFETY PIN ARE PUSHED INTO FUSELAGE SO THAT IT DOES NOT BIND CONTROL ROD. SECURE IN PLACE WITH CEMENT. CHECK ENTIRE SYSTEM FOR FREE AND EASY OPERATION. CONTROL IS ALSO CHECKED BEFORE EACH FLIGHT. SAND ENTIRE MODEL SMOOTH TO PREPARE FOR PAINTING. APPLY TWO COATS OF CLEAR DOPE TO ALL WOOD SURFACES. APPLY COLOR DOPE AS DESIRED. PAINT SCHEME ON CURTISS P-40 TIGER SHARK VARIED WITH USE. AT TIMES TOP OF WING, FUSELAGE AND TAIL WERE CAMOUFLAGED AND BOTTOM OF PLANE WAS SKY BLUE. MODELS WERE ALSO PAINTED OLIVE DRAB. SOMETIME THEY WERE LEFT UNPAINTED IN ALL ALUMINUM. OUR ORIGINAL MODEL WAS PAINTED ALONG THE LINES OF THE OLD AIR FORCE COLORING, WHICH WAS BLUE FUSELAGE AND RUDDER WITH YELLOW WINGS AND STABILIZER. CHOICE IS LEFT UP TO MODEL BUILDER. APPLY DECALS AS SHOWN. ADD FINAL COAT OF CLEAR HOT FUEL PROOFER. LOCATE AND DRILL MOUNTING HOLES FOR ENGINE TO BE USED. SEE ENGINE MOUNTING DETAIL. ENGINE IS MOUNTED WITH CYLINDER ON OUTSIDE OF CIRCLE FLOWN. CONSTRUCT FUEL TANK AS SHOWN ON PLANS OR PURCHASE SIMILAR TYPE, AND INSTALL DIRECTLY BEHIND ENGINE AS SHOWN. BE CAREFUL FUEL LINE TUBING IS CLEAR OF ENGINE. THAT COMPLETES YOUR CURTISS P-40 TIGER SHARK. GOOD FLYING, AND GOOD COMBAT HUNTING.

TAIL ASSEMBLY CONSTRUCTION NOTE

SECURELY CEMENT ELEVATOR HALVES TO 3/32 X 3/16 POPLAR SPAR AS SHOWN ABOVE SO THAT THE OUTLINE OF ELEVATORS, POPLAR SPAR AND STABILIZER FORM A MATCHING CURVE AS SHOWN ABOVE AND ON TOP VIEW. SAND STABILIZER AND ELEVATOR TO APPROXIMATE STREAMLINE SHAPE, ROUNDING OFF FRONT OF STABILIZER AND SLIGHTLY TAPERING ELEVATOR. SAND OUTER EDGES OF ELEVATOR HORN AND CEMENT TO ELEVATOR AT CLEARANCE SLOT LOCATION IN STABILIZER. FRONT OF HORN SHOULD MOVE FREELY IN STABILIZER SLOT WHEN ASSEMBLED. APPLY THREE HEAVY COATS OF CEMENT AND ALLOW TO DRY. ASSEMBLE STABILIZER AND ELEVATOR WITH CLOTH HINGES USING METHOD SHOWN IN DETAIL SKETCH. HINGES ARE SECURELY CEMENTED ON TOP AND BOTTOM SURFACES ONLY. DO NOT CEMENT BETWEEN UNITS. WHEN DRY, ELEVATOR SHOULD FREELY MOVE UP AND DOWN. SAND RUDDER TO APPROXIMATE STREAMLINE SHAPE IN SAME MANNER AS STABILIZER. RUDDER HALVES ARE CEMENTED TOGETHER SO THAT REAR PORTION IS ANGLED 3/8" TOWARDS OUTSIDE OF CIRCLE FLOWN AS CLEARLY SHOWN AND MARKED ON TOP VIEW. WHEN DRY, CEMENT RUDDER INTO NOTCH IN STABILIZER. ASSEMBLY IS NOW READY TO BE CEMENTED TO TOP REAR OF FUSELAGE AS DESCRIBED IN FINAL ASSEMBLY NOTE.