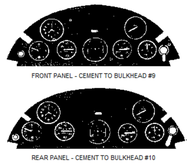
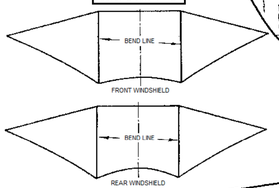
INSTRUMENT PANELS



WINDSHIELDS



DANGER
RULES FOR SAFE FLYING

ALL EQUIPMENT MUST BE CHECKED BEFORE EACH FLIGHT TO MAKE SURE IT IS IN GOOD OPERATING CONDITION.

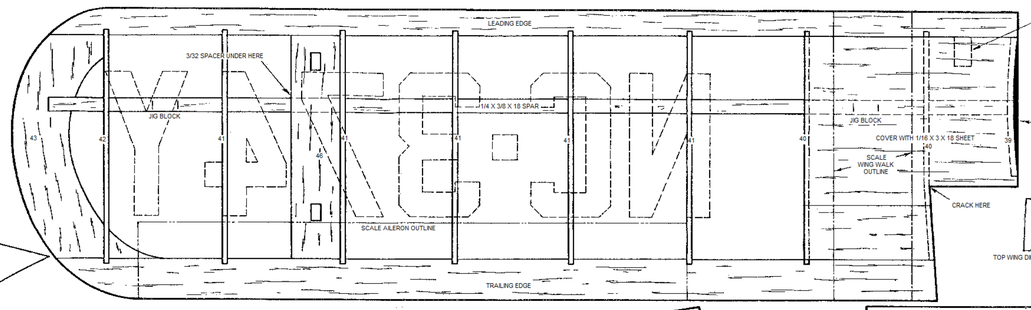
FLY ONLY IN A CLEAR UNOBSTRUCTED AREA.

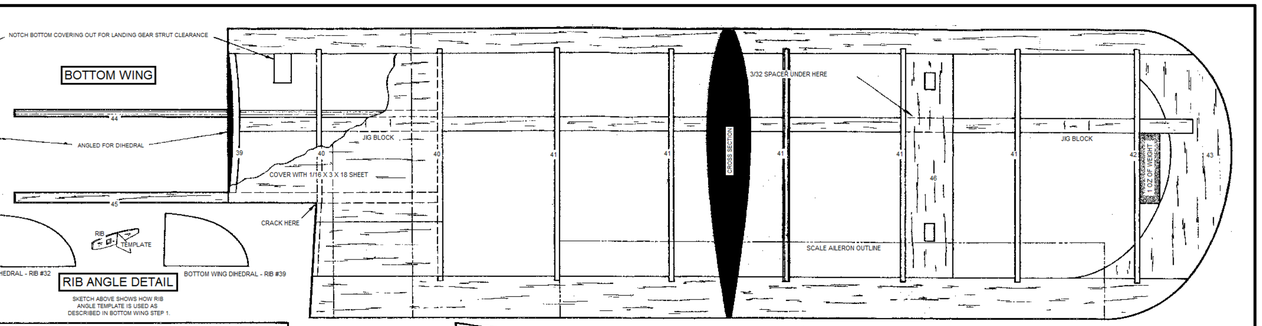
MODEL MUST NEVER BE FLOWN IN THE VICINITY OF POWER LINES OR ANY ELECTRICAL LINES.

MODEL SHOULD NEVER BE FLOWN WHEN THUNDER AND LIGHTNING STORMS ARE IN THE AREA.

PRECAUTIONS SHOULD BE TAKEN TO ENSURE THE SAFETY OF ALL SPECTATORS, MODELER AND PROPERTY.

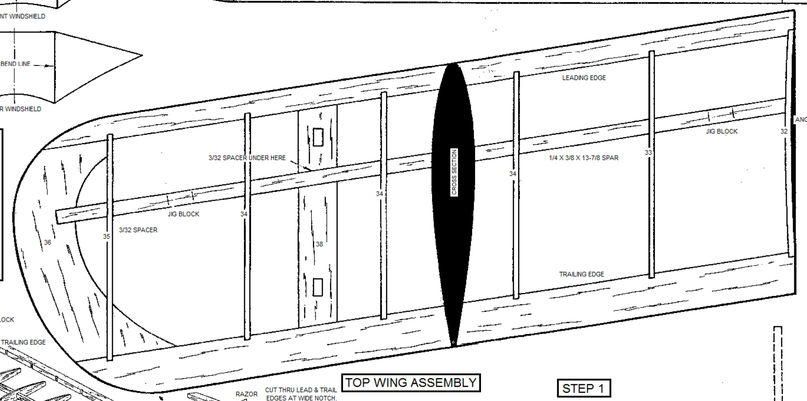
STERLING MODELS INC.
PHILA. PA. 19134 U.S.A.





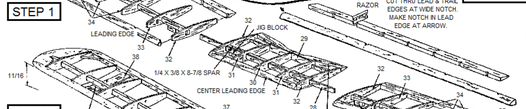
RIB ANGLE DETAIL

SKETCH ABOVE SHOWS HOW RIB ANGLE TEMPLATE IS USED AS DESCRIBED IN BOTTOM WING STEP 1.

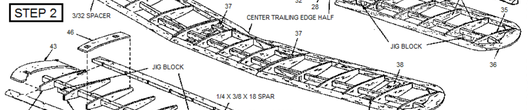


TOP WING ASSEMBLY

STEP 1



STEP 2

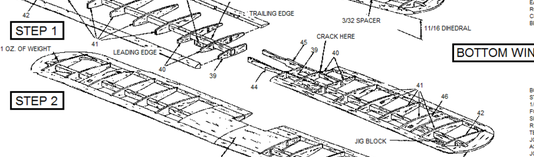


WINGS ARE BUILT OVER FULL SIZE PLAN. ASSEMBLE CENTER SECTION FIRST. CUT CENTER SPAR TO LENGTH FROM 1/4 X 3/8 X 8-7/8 STRIP. EXCESS PIECE IS CUT IN HALF AND USED AS JIG BLOCKS ON WHICH FRAME IS PLACED WHILE WING IS ASSEMBLED. CEMENT CENTER SPAR ACROSS CENTER OF PLYWOOD SPAR #29. SLIDE RIBS ONTO ASSEMBLED SPAR IN NUMBERED ORDER SHOWN, THEN POSITION FRAME OVER PLAN AND PIN DOWN PLACING JIG BLOCKS UNDER SPAR AS SHOWN. DETAIL SKETCH SHOWS HOW CENTER TRAILING EDGE SECTIONS ARE CUT FROM 25" TRIANGULAR TRAILING EDGE STOCK. TRIM TO SHAPE. CEMENT PLYWOOD SPAR #29 INTO RIBS. TRAILING EDGE SECTIONS ARE TRIMMED TO SHAPE AND CEMENTED TO REAR. DETAIL SKETCH SHOWS HOW CENTER LEADING EDGE IS CUT FROM 21-3/4" LENGTH OF LEADING EDGE MATERIAL. OPPOSITE END MUST BE NOTCHED FOR RIB BY MODELER, THEN LEADING EDGE IS CEMENTED TO FRONT OF RIBS AS SHOWN. CHECK THAT LEADING & TRAILING EDGES ARE POSITIONED AS SHOWN IN WING CROSS-SECTION. ALLOW TO DRY THOROUGHLY. CENTER PANELS ARE ASSEMBLED MUCH IN SAME MANNER BY CUTTING 13-7/8" SPARS TO LENGTH USING EXCESS FOR JIG BLOCKS. SLIDE RIBS ONTO SPAR IN NUMBERED ORDER SHOWN. RIBS #32 ARE SET AT ANGLE USING TOP WING RIB ANGLE TEMPLATE FOR PROPER DIHEDRAL ANGLE. ADD LEADING & TRAILING EDGES. CEMENT TIP #35 IN PLACE BETWEEN LEADING & TRAILING EDGES AND INTO NOTCH IN REAR OF RIB #35. SPAR FITTING INTO NOTCH IN #35. BOTH PANELS ARE BUILT IN SAME MANNER AND SHOULD BE ALLOWED TO DRY THOROUGHLY BEFORE THEY ARE REMOVED FROM FLAT SURFACE. OVERNIGHT IS RECOMMENDED.

REMOVE WING PANELS FROM FLAT SURFACE. THEN CEMENT PANELS TOGETHER, SLIDING #29 THROUGH NOTCHES IN RIBS #32 & #33. PIN PANELS TIGHTLY TOGETHER ALIGNING THEM TO EACH OTHER CAREFULLY. NOTE THAT WHEN PANELS ARE ASSEMBLED (WITH WING ON FLAT SURFACE AND RIB LEVEL AS SHOWN ON SIDE VIEW), THERE IS 11/16 DIHEDRAL UNDER EACH TIP AS SHOWN. ALLOW TO DRY THOEOUGHLY. THEN ROLL STRUT GUSSETS #37 & #38 AS SHOWN IN DETAIL AND CEMENT IN PLACE, CEMENTING 3/32 SCRAP SPACER BETWEEN GUSSETS AND SPAR AS SHOWN. TRIM SPAR

LEADING & TRAILING EDGES. THEN SAND ENTIRE FRAME SMOOTH. BLENDING WING TIPS INTO LEADING & TRAILING EDGE. BOTTOM OF WING ONLY IS NOW COVERED WITH SILKSPAN PROVIDED IN KIT. GRAIN RUNNING SPANWISE. TOP OF WING IS LEFT UNCOVERED UNTIL AFTER WINGS ARE INSTALLED. SO THAT WING STRUTS MAY BE FINELY CEMENTED INSIDE OF WING BEFORE COVERING IS COMPLETED. DO NOT MOISTEN OR SHRINK COVERING. THIS IS DONE AFTER BOTH SIDES OF WING HAVE BEEN COVERED IN ORDER TO PREVENT WARPS.

BOTTOM WING ASSEMBLY

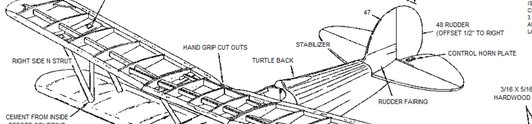


STEP 2

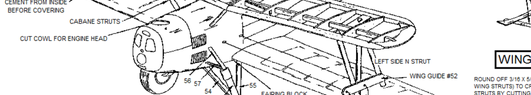
BOTTOM WING IS BUILT IN HALVES. USE 18" TRAILING EDGE STOCK. CUT TO SHAPE SHOWN ON FULL SIZE PLAN. CUT THE 1/4 X 3/8 X 18 SPARS TO LENGTH, CUTTING THE EXCESS IN HALF FOR JIG BLOCKS. SLIDE RIBS ONTO SPAR BY THE NUMBER AS SHOWN, THEN PIN ASSEMBLY TO PLAN OVER JIG BLOCKS. RIBS #39 ARE SET AT ANGLE, USING BOTTOM WING RIB ANGLE TEMPLATE FOR PROPER DIHEDRAL ANGLE. CEMENT PLYWOOD JOINER #44 INTO NOTCHES THROUGH RIBS #39 AND BOTH #40s AS SHOWN, MAKING FRONT OF SPAR. CEMENT REAR BALSA JOINER #45 TO REAR OF #39 AND THROUGH NOTCHES IN BOTH RIBS #40. CEMENT TRAILING EDGE IN PLACE, CRACKING

OUTER RIBS #40 AT JOINER #45 TO MATCH ANGLE ON PLAN. APPLY 2 COATS OF CEMENT OVER CRACK. CENTER RIBS # 40S BETWEEN TOP AND BOTTOM OF TRAILING EDGE. CEMENT LEADING EDGE IN PLACE FOLLOWED BY TIP #43 WHICH IS CEMENTED BETWEEN LEADING & TRAILING EDGES AND INTO NOTCH IN #42. SPAR FITS INTO NOTCH IN #43. TIP GUSSETS #46 ARE ROLLED TO RIB SHAPE AS SHOWN IN DETAIL, THEN CEMENTED IN PLACE WITH 3/32 SCRAP BETWEEN GUSSETS AND SPAR AS SHOWN. OPPOSITE PANEL IS BUILT IN SAME MANNER, OMITTING #44 & #45. ALLOW STRUCTURE TO DRY OVERNIGHT.

SHEET ONLY. 1 OZ. OF WEIGHT IS NOW SECURELY FASTENED TO RIGHT WING TIP. USE FISHING SINKER - IF NECESSARY TO CUT TO FIT. SAND ENTIRE FRAME SMOOTH FOR COVERING, TRIMMING AND SANDING WING TIPS SMOOTHLY INTO LEADING AND TRAILING EDGE. COVER TOP OF WING ONLY GRAIN RUNNING SPANWISE. DO NOT SHRINK COVERING. THIS IS DONE WHEN BOTTOM OF WING IS COVERED AFTER WINGS ARE INSTALLED, OTHERWISE WING MAY WARP.

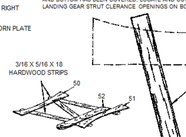


STEP 2

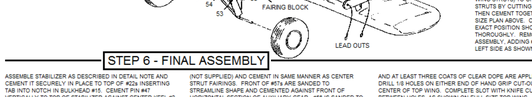


REMOVE FRAMES FROM FLAT SURFACE, THEN CEMENT TOGETHER, INSERTING #44 & #45 INTO NOTCHES IN RIBS TO RECEIVE THEM. TRIM REAR EDGE TO ANGLE OF REAR SPAR. PIN CENTER RIBS #39 TIGHTLY TOGETHER SO THAT THERE IS 1-1/4" OF DIHEDRAL UNDER TIP AS SHOWN WHEN OTHER PANEL IS FLAT ON SURFACE. ALLOW TO DRY THOROUGHLY THEN COVER CENTER SECTION FROM OUTER RIBS #40 USING 1/16 X 3 X 18 BALSA. SEAMS ARE JOINED OVER RIBS #39. AFTER TOP AND BOTTOM HAS BEEN COVERED, LOCATE AND CUT OUT LANDING GEAR STRUT CLEARANCE OPENINGS ON BOTTOM

WING STRUT DETAIL

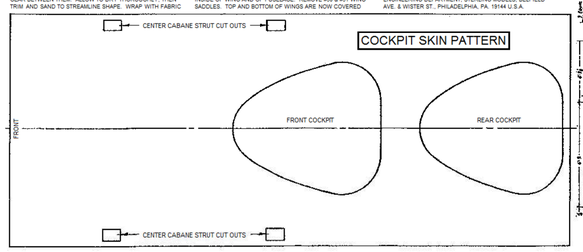


ROUND OFF 3/16 X 5/16 X 18 HARDWOOD STRIPS (USED FOR ALL WING STRUTS) TO CROSS SECTION AS SHOWN. ASSEMBLE 'N' STRUTS BY CUTTING SHAPED STRIPS TO LENGTH AND ANGLE, THEN CEMENT TOGETHER OVER SARAN WRAP COVERED FULL SIZE PLAN ABOVE. CENTER WING SADDLES #50 & 51 IN THE EXACT POSITION SHOWN AND ALLOW ASSEMBLY TO DRY THOROUGHLY. REMOVE FROM PLAN AND MAKE A SECOND ASSEMBLY, ADDING #52. SECOND ASSEMBLY IS INSTALLED ON LEFT SIDE AS SHOWN AND DESCRIBED IN STEP 6.

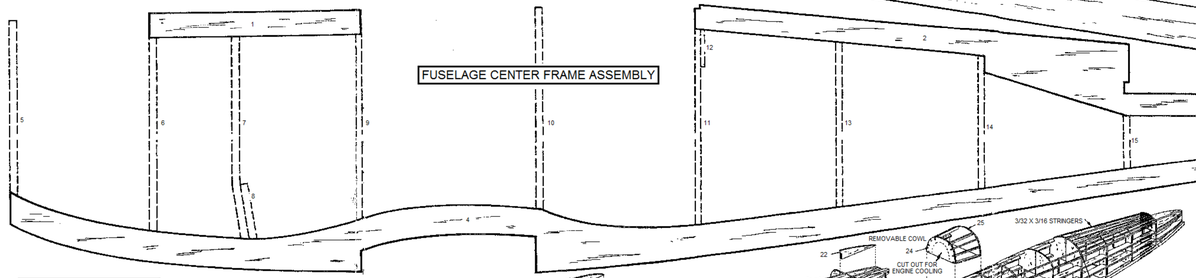


STEP 6 - FINAL ASSEMBLY

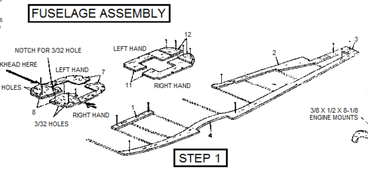
ASSEMBLE STABILIZER AS DESCRIBED IN DETAIL NOTE AND CEMENT IT SECURELY IN PLACE TO TOP OF #22a INSERTING TAB INTO NOTCH IN BULKHEAD #10. CEMENT PIN #47 VERTICALLY TO TOP OF STABILIZER AGAINST CENTER KEEL #2. CEMENT RUDDER #48 TO REAR OF #47 AND FUSELAGE OFFSET AT AN ANGLE 1/2" TO THE RIGHT (WEIGHTED WINGTIP). MAKE WING 'N' STRUTS AS DESCRIBED IN DETAIL NOTE. INSTALL CONTROL SYSTEM AT THIS POINT AS SHOWN AND DESCRIBED IN CONTROL SYSTEM DETAIL NOTE. THEN SECURELY CEMENT THE BOTTOM WING IN FUSELAGE BETWEEN #6 & #10. WING MUST REST SNUGLY UP AGAINST CENTER KEEL #4 AND SIDE PLATES #23 FOR CORRECT ANGLE INCIDENCE. OTHERWISE MODEL MAY NOT FLY PROPERLY. HOLD WITH PINS, CHECKING THAT WING IS HORIZONTAL AND IN LINE WITH STABILIZER. WING AND TAIL MUST BE THOROUGHLY DRY BEFORE PROCEEDING WITH ASSEMBLY. OVERNIGHT IS RECOMMENDED. SPACE BETWEEN BOTTOM OF BULKHEAD #9 AND BOTTOM WING IS FILLED WITH A 3/8 X 1-5/8 X 3-3/8 FAIRING BLOCK. CUT BLOCK TO TRIANGULAR SHAPE AS SHOWN ON SIDE VIEW. WHEN FITTED PROPERLY, FUSELAGE BOTTOM SHOULD LOOK LIKE IT FAIRS SMOOTHLY INTO BOTTOM WING. AFTER BLOCK HAS BEEN FITTED, LOCATE HOLES (PREVIOUSLY CUT INTO BOTTOM SKIN COVERING OF LOWER WING) FOR LANDING GEAR STRUT TRAVEL CLEARANCE, AND CUT CORRESPONDING HOLES IN FAIRING BLOCK. THEN CEMENT BLOCK IN PLACE. LANDING GEAR WOOD FAIRING STRUTS #54 ARE INSTALLED AGAINST REAR OF WIRE MAIN LANDING GEAR FRONT OF WIRE PROVIDES THE ROUNDED SURFACE AND REAR SHOULD BE TAPERED TO FORM THE STREAMLINE SECTION. AFTER STRUTS HAVE BEEN SANDED, CEMENT SECURELY IN PLACE LEAVING 1/2" SPACE BETWEEN TOP OF STRUT AND FUSELAGE, FOR SHOCK MOVEMENT. CHECK ALIGNMENT AND ALLOW TO DRY THOROUGHLY, THEN WRAP STRUT TO WIRE GEAR WITH FABRIC (NOT SUPPLIED). APPLY 2 OR 3 COATS OF CEMENT TO INSTALLATION, ALLOWING IT TO DRY BETWEEN COATS. CEMENT OUTER STRUTS #53a IN PLACE. STRUTS ARE CREASED ON INSIDE, SO THAT WHEN THEY ARE CEMENTED TOGETHER, THEY SANDWICH AUXILIARY GEAR BETWEEN THEM. ALLOW TO DRY THOROUGHLY. THEN TRIM AND SAND TO STREAMLINE SHAPE. WRAP WITH FABRIC (NOT SUPPLIED) AND CEMENT IN SAME MANNER AS CENTER STRUT FAIRINGS. FRONT OF #57a ARE SANDED TO STREAMLINE SHAPE AND CEMENTED AGAINST FRONT OF HORIZONTAL SECTION OF AUXILIARY GEAR. #56 IS SANDED TO STREAMLINE SHAPE AND CEMENTED SECURELY BETWEEN FUSELAGE AND CORNER BEND OF AUXILIARY GEAR. REAR STRUT #55 IS SANDED TO STREAMLINE SHAPE. ROUNDED END OF STRUT IS PLACED IN SHOCK TRAVEL CUT OUT OF WING FAIRING BLOCK. OPPOSITE ANGLED END IS SECURELY CEMENTED TO BACK OF #54 FLUSH WITH BOTTOM. BOTTOM JOINT SHOULD BE WRAPPED AND HEAVILY CEMENTED. WHEN DRY, REAR STRUTS #55 SHOULD MOVE FREELY THROUGH SLOT, PROVIDING SHOCK ABSORBING TRAVEL. CUT A 3" LENGTH FROM THE 5/8 X 3 X 11-7/8 BLOCK FOR THE TURTLE BACK. TRIM AND SAND BLOCK TO SHAPE OF TURTLE BACK AS SHOWN ON SIDE VIEW AND SKETCHES, THEN CEMENT IN PLACE AT BACK OF REAR COCKPIT. CEMENT RUDDER FAIRING AS SHOWN AND DESCRIBED IN RUDDER FAIRING DETAIL NOTE. CLEAR TISSUE FROM NOTCHES FOR WING STRUTS IN FUSELAGE AND WINGS, THEN INSERT OUTER 'N' STRUT ASSEMBLIES INTO BOTTOM WING. PUSH DOWN FIRMLY UNTIL ENTIRE LENGTH OF WING SADDLE #51a CONTACT WING. STRUT ASSEMBLY WITH WING SADDLE #52 IS INSTALLED ON LEFT SIDE AS SHOWN. PLACE TOP WING ON STRUTS AND PUSH DOWN UNTIL ENTIRE TOP OF WING SADDLE #50a CONTACTS BOTTOM OF WING. CHECK THAT STRUTS ARE VERTICAL, THEN SECURELY CEMENT JOINTS FROM INSIDE OF WINGS. ALLOW TO DRY THOROUGHLY AND APPLY A SECOND AND THIRD COAT OF CEMENT, ALLOWING DRYING TIME BETWEEN COATS. ALLOW ASSEMBLY TO DRY THOROUGHLY BEFORE PROCEEDING. WHEN DRY, INSTALL CENTER CABANE STRUTS INTO NOTCHES BETWEEN TOP WING AND FUSELAGE. CUT FOUR SECTIONS OF HARDWOOD STRUT MATERIAL TO 3-3/4". INSERT ONE END IN FUSELAGE NOTCH. THEN PUSH OPPOSITE END INTO NOTCH IN BOTTOM OF WING. ANGLED PART OF CENTER CABANE STRUT IS CUT TO LENGTH WITH ENDS AT PROPER ANGLE, AND ARE THEN CEMENTED IN PLACE BETWEEN CABANE STRUTS AS SHOWN. SECURELY CEMENT CENTER CABANE STRUTS FOM INSIDE OF WING AND OF FUSELAGE. REMOVE #50 & #51 WING SADDLES. TOP AND BOTTOM OF WINGS ARE NOW COVERED AND AT LEAST THREE COATS OF CLEAR DOPE ARE APPLIED. DRILL 1/8 HOLES ON EITHER END OF HAND GRIP CUT-OUT IN CENTER OF TOP WING. COMPLETE SLOT WITH KNIFE CUTS BETWEEN HOLES, AS SHOWN ON FULL SIZE TOP WING DRAWING. DRAWING SHOWS INSTALLATION OF PODS. IF ANY OTHER ENGINE IS USED, ADJUST ENGINE MOUNTS TO SUIT IF NECESSARY. PLACE ENGINE ON MOUNTS IN POSITION SHOWN ON SIDE VIEW AND MARK LOCATION OF MOUNTING BOLTS. DRILL 5/32 HOLES AND INSTALL BLIND NUTS BY DRAWING THEM UP INTO BOTTOM OF ENGINE MOUNTS WITH #4G SCREWS PROVIDED. CEMENTING THEM SECURELY IN PLACE. CUT OUT TOP OF REMOVABLE COWL TO CLEAR ENGINE HEAD. ALLOW 1/4 CLEARANCE IF ENGINE BARTS UP WHEN FLYING. INCREASE CLEARANCE. ENTIRE MODEL IS NOW PAINTED. ORIGINAL MODEL WAS PAINTED ORANGE. FUSELAGE STRIPE IS BLACK AND CURVES AT TOP AND BOTTOM TO A POINT AT THE CENTER OF THE COWL. WING WALKS ARE BLACK. CAN BE SIMULATED WITH STRIPS OF WITCH'Y SANDPAPER CEMENTED IN PLACE. COCKPIT COAMING MAY BE SIMULATED BY CUTTING TUBING AND LINING RIM OF COCKPIT. CEMENT INSTRUMENT PANELS IN PLACE. USING FULL SIZE LAYOUT, CUT WINDSHIELD PANELS FROM CELLULOID. BEND AT CREASE MARKS. WINDSHIELDS ARE OUTLINED IN BLACK, THEN CEMENTED TO FRONT OF COCKPITS. ORIGINAL MODEL USED 2-3/4" DIAMETER WILLIAMS BROTHERS CONTOUR TYPE WHEELS, NOT SUPPLIED IN KIT. ANY OTHER SIMILAR WHEEL MAY BE USED. USE INDIA INK OR TRIM TAPE TO OUTLINE ALL MOVEABLE SURFACES, SUCH AS AILERON, ETC., SEE THREE VIEW DRAWING. ORIGINAL MODEL USED BLACK ELASTIC THREAD FOR RIGGING. OBTAINABLE AT ANY GOOD DEPARTMENT OR DRY GOODS STORE. SOAK DECALS, THEN SLIDE OFF INTO POSITION SHOWN. BEFORE FLYING YOUR MODEL, BE CERTAIN IT BALANCES LEVEL OR NOSE DOWN AT POINT SHOWN BY ARROW ON SIDE VIEW. DO NOT FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED. IF NECESSARY, ADD WEIGHT TO NOSE OR TAIL. GOOD LUCK ! ! GOOD FLYING ! ! HAPPY LANDINGS ! ! WE WELCOME YOUR COMMENTS ON THIS MODEL. WRITE TO ENGINEERING DEPARTMENT, STERLING MODELS, BELFIELD AVE. & WISTER ST., PHILADELPHIA, PA. 19144 U.S.A.



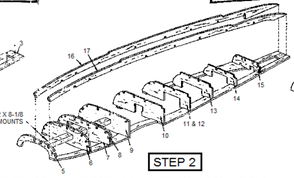
FUSELAGE CENTER FRAME ASSEMBLY



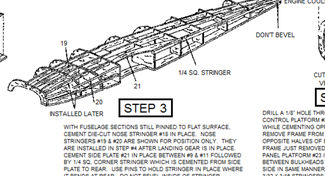
FUSELAGE ASSEMBLY



STEP 1



STEP 2



FUSELAGE CONSTRUCTION IS STARTED ON A FLAT SURFACE DIRECTLY OVER FULL SIZE FUSELAGE FRAME ASSEMBLY PLAN. SPREAD SARAN WRAP OVER PLAN TO PREVENT FRAME FROM STICKING. PIN PARTS #1, #2, #3 & #4 IN PLACE, CEMENTING #3 BETWEEN #2 & #4. CEMENT BOTH BULKHEAD SECTIONS #5a TO BOTTOM OF BULKHEAD #7. BE SURE TO MAKE A LEFT AND RIGHT AS SHOWN. DO LIKEWISE BY CEMENTING #12a TO TOP OF #11a. UNIVILUP CENTER NOTCHES. THIS PROVIDES A 1/8" SHOULDER FOR STRINGER INSTALLATION. WHEN DRY, DRILL 5/32" HOLES THROUGH

PUNCH MARKS IN #6a. A 3/32" HOLE IS ALSO REQUIRED IN THE CENTER OF BULKHEAD WHEN THE TWO HALVES ARE JOINED. THIS IS ACCOMPLISHED BY NOTCHING THE BULKHEAD HALVES AS SHOWN. ASSEMBLED BULKHEAD #7 ARE IS NOW CRADLED AT ANGLE SHOWN ON THE FUSELAGE CENTER FRAME ASSEMBLY DRAWING. PUT A KNIFE CUT ACROSS THE BULKHEAD IN LINE WITH TOP OF #6, THEN PLACE ON EDGE OF TABLE AND CRACK UNTIL ANGLE IS ASSUMED. APPLY 2 COATS OF CEMENT TO BOTH SIDES AT CRACK.

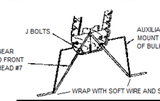
CEMENT BULKHEAD HALVES FROM #6 TO #15 VERTICALLY TO FRAME. SLIP 3/8 X 1/2 X 5-1/8 HARDWOOD ENGINE MOUNT IN PLACE THROUGH NOTCHES IN BULKHEADS #6 THROUGH #9. FLUSH AGAINST REAR OF # 5 AS SHOWN. ADD SIDE KEELS #16 & #17 WHICH ARE INTERNOTCHED WITH BULKHEADS THUS ASSURING A SQUARE FRAME.

Its classic lines are just beautiful from any angle . . .

BALANCE HERE

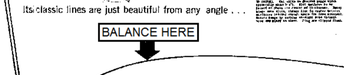
AUXILIARY LANDING GEAR

BEND FROM 1/16 WIRE USING THIS FULL SIZE PATTERN

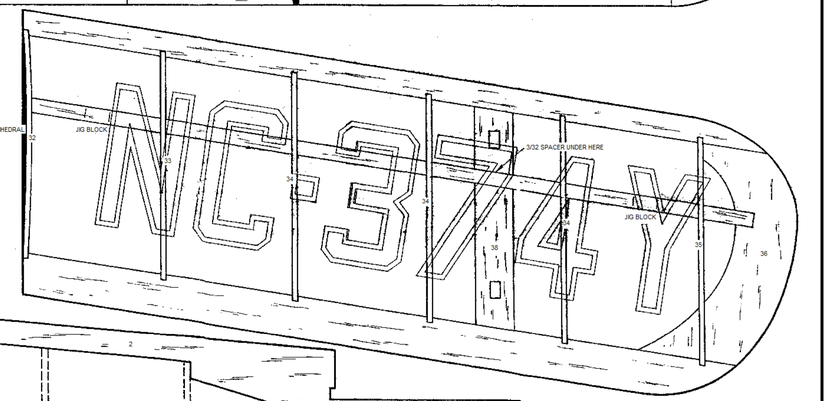


LANDING GEAR DETAIL

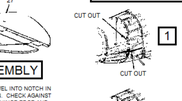
SKETCH ABOVE SHOWS HOW PRE-BENT WIRE MAIN GEAR IS CONSTRUCTED IN FRONT OF BULKHEAD #7 AND USING 1/2" BOLTS. BENDS ACCURATELY GEAR FROM 1/16" WIRE USING FULL SIZE PATTERN. INSTALL WITH 'J' BOLTS ON REAR OF BULKHEAD AS SHOWN. BOTTOM IS WRAPPED WITH THIN, SOFT WIRE (NOT PROVIDED) TO HOLD IN PLACE AGAINST MAIN GEAR, THEN SOLDERED SECURELY.



TOP WING



STEP 3



WITH FUSELAGE SECTIONS STILL PINNED TO FLAT SURFACE, CEMENT DIE-CUT NOSE STRINGER #18 IN PLACE. NOSE STRINGERS #19 & #20 ARE SHOWN FOR POSITION ONLY. THEY ARE INSTALLED IN STEP #4 AFTER LANDING GEAR IS IN PLACE. CEMENT SIDE PLATE #21 IN PLACE BETWEEN #9 & #11 FOLLOWED BY 1/4 SQ. CORNER STRINGER WHICH IS CEMENTED FROM SIDE PLATE TO REAR. USE PINS TO HOLD STRINGER IN PLACE WHERE IT BENDS AT REAR. DO NOT BEVEL INSIDE OF STRINGER. OUTSIDE OF STRINGER IS TRIMMED TO SHAPE OF #17 (AS INDICATED IN DOTTED LINES) IN LATER STEP. CEMENT STABILIZER PLATFORM #22 INTO NOTCH IN #15 AND ALONG SIDE AND PLUSH WITH TOP OF #21. ALLOW FRAME TO DRY THOROUGHLY BEFORE REMOVING FROM FLAT SURFACE. OVERNIGHT IS STRONGLY RECOMMENDED.

STEP 4

DRILL A 1/8" HOLE THROUGH PUNCH MARKS IN PLYWOOD CONTROL PLATFORM #23. PLATFORM WILL BE INSTALLED WHILE CEMENTING OPPOSITE BULKHEAD HALVES IN PLACE. REMOVE FRAME FROM FLAT SURFACE AND CEMENT OPPOSITE HALVES OF BULKHEADS IN PLACE DIRECTLY TO FRAME JUST REMOVED, INSERTING PLYWOOD CONTROL PANEL PLATFORM #23 IN PLACE (HOLE LEFT OF CENTER) BETWEEN BULKHEADS #9 & #10 AS SHOWN. COMPLETE SIDE IN SAME MANNER AS OPPOSITE SIDE. INSTALL ALL 3/32 X 3/16 STRINGERS (BREAK FROM STRIP SHEET) TO TOP OF FUSELAGE AS SHOWN. NOTE THAT STRINGERS FROM # 6 TO #11 ARE FLUSH WITH BULKHEADS. REAR STRINGERS ARE CEMENTED TO TOP OF #12 (AGAINST REAR AND EXTENDING 1/16" ABOVE #11) WITH TOP OF BULKHEADS #13 & #14. FLUSH WITH TOP OF BULKHEAD #15 AS SHOWN. ASSEMBLE REMAINING SIDE SECTION BY PINNING

#24 AGAINST REAR OF #6 AND #25 AGAINST FRONT OF # 6. CEMENT STRINGERS INTO NOTCHES AGAINST BULKHEADS AS SHOWN IN THE EXPLODED SECTION. BEING CAREFUL NOT TO WET CEMENT ONTO ADJOINING BULKHEADS. MAIN AND AUXILIARY LANDING GEAR STRUTS ARE NOW INSTALLED AS SHOWN AND DESCRIBED IN LANDING GEAR INSTALLATION DETAIL NOTE AND SKETCH. AFTER LANDING GEAR IS INSTALLED, CEMENT DIE-CUT STRINGERS #19a & #20a ON BOTH SIDES OF FUSELAGE AS SHOWN IN STEP #3 SKETCH. COWL IS HELD IN PLACE WITH SNAP FASTENERS. RECESS FOR CLOSE FIT BETWEEN COWL AND FUSELAGE AND CEMENT SECURELY IN PLACE. KEEP HOLE IN FIREWALL BETWEEN SECTION CLEAR OF CEMENT. SHADED SECTIONS ARE CUT OUT AND COOLING VENTS INSTALLED AS SHOWN AND DESCRIBED IN ENGINE VENT DETAIL.

INSTALL TANK (NOT PROVIDED IN KIT). ANY CONTROL LINE OR RADIO CONTROL TANK OF NOT LESS THAN 3 TO 4 OZ. CAPACITY (SIMILAR TO PERFECT #13 REC-TANK, OR PYLON 4 OZ. ROUND TANK) MAY BE USED. LOCATE AND MAKE 1/8" HOLE FOR FEED TUBE IN BULKHEAD #6. THEN MOUNT TANK DIRECTLY BEHIND BULKHEAD #6, FASTENING SECURELY TO TOP OF ENGINE BEARS. INSTALL FILL AND OVERFLOW TUBES ACCORDING TO FUEL TANK MANUFACTURER'S INSTRUCTIONS. FUSELAGE IS COVERED AS SHOWN, USING 3/32 X 3 X 18 SHEET. MOISTEN ONE SIDE OF SHEET WITH WATER, WHICH WILL CAUSE SHEET TO BEND EASILY TO CURVE. USE PLENTY OF PINS AND CEMENT GENEROUSLY ON ALL FRAMES COVERED. COVER TOP OF FUSELAGE FROM #6 TO #11 FIRST, JOINING CENTER SEAM OVER CENTER KEEL. TRIM FLUSH WITH STRINGER, THEN COVER BOTH SIDES FROM #6 BACK TO NOTCH IN SIDE KEELS # 16 AND #17. TRIMMING TO FIT AGAINST TOP SKINS AND TOP SIDE PLATES #21 AS SHOWN. COMPLETE SIDE PANELS BY COVERING BOTTOM FROM #6 TO #9 DOWN TO DIE-CUT STRINGER #20. NOTCH OUT FOR AUXILIARY LANDING GEAR AND CEMENT IN PLACE. NOTCH IS THEN FILLED WITH SCRAP. BOTTOM OF FUSELAGE FROM #6 TO #9 IS COVERED IN ONE PIECE, NOTCHING FOR MAIN GEAR WHICH IS LIKEWISE FILLED WITH SCRAP. TAKE REMOVABLE COWL SECTION OUT OF FUSELAGE SLICING THROUGH ANY ACCIDENTAL GLUE JOINTS. COVER IN TWO HALVES AS SHOWN, BEING CAREFUL TO KEEP BOTH BULKHEADS STRAIGHT SO THAT THEY WILL GO BACK INTO FUSELAGE SMOOTHLY WITH THE SKIN COVERING & CLOSE FIT.

BOTTOM OF NOSE IS COVERED IN TWO HALVES IN SAME MANNER. USING 1/16 SHEET (GRAIN RUNNING VERTICALLY) COVER AREA NETWEEN #15 & #17 FROM BULKHEAD #15 TO REAR. THE CONTROL ROD COMES THROUGH THIS AREA AND IS INTER-NOTCHED TO SUIT, AS INDICATED IN DOTTED LINE. CUT PLASTIC COWL FROM SHEET. TRIMMING OUT ALL RECESSED AREAS IN FRONT. ALLOW FUSELAGE FRAME TO DRY THOROUGHLY THEN ADD ENTIRE FUSELAGE SKIN TO PREPARE FOR COVERING, SANDING THICKNESS OF SHEET SMOOTHLY INTO PROTRUDING STRINGERS AT REAR AND SIDES TO SAME LEVEL, AND SANDING FRONT TO FIT PLASTIC COWL. BOTTOM 14 SQ. STRINGERS IS TRIMMED TO SHAPE OF #17 AS SHOWN IN DOTTED LINES OF STEP #3 SKETCH. CUT THE FULL SIZE COCKPIT PATTERN LAYOUT FROM PLANS AND PLACE ON FUSELAGE, HOLDING WITH SCOTCH TAPE. THEN MARK OFF THE COCKPIT OUTLINES AND CABANE STRUT NOTCHES LOCATIONS. REMOVE PATTERN AND CUT OUT COCKPIT HOLES AND CABANE STRUT NOTCHES. COVER BOTTOM OF FUSELAGE WITH SILKSPAN TISSUE, GRAIN RUNNING LENGTHWISE. BEND TAIL SKID TO SHAPE SHOWN ON SIDE VIEW USING 1/16 WIRE. PUSH THROUGH HOLE IN #4 THEN CEMENT TO FRONT OF #3 AND BOTTOM OF #4 USING AT LEAST 2 HEAVY COATS OF CEMENT. COVER REMAINDER OF FUSELAGE (INCLUDING SHEET COVERED AREAS) WITH SILKSPAN TISSUE, THEN APPLY AT LEAST 3 COATS OF CLEAR DOPE. TRACE THE INSIDE OUTLINE OF #24 & #25 ONTO COVERING ON STEP #4 SKETCH, THEN CUT SECTION OUT. THIS IS FOR ENGINE COOLING.

ENGINE VENT DETAIL

CUT OUT SHADED SECTIONS