



FUSELAGE ASSEMBLY NOTES

STEP 1
PREPARE TO ASSEMBLE FUSELAGE BY PUSHING DECK FROM SHEET 9. IT IS IMPERATIVE THAT YOU DETERMINE THE SELECTION OF YOUR ENGINE TO BE USED IN THIS MODEL. SEE SO THAT THE PROPER SPACING AND LOCATION OF YOUR ENGINE BEARERS MAY BE DETERMINED IN MANNER SHOWN IN DETAIL DRAWING. CUT SQUARE HOLES IN BULKHEADS PROVIDED FOR SURE FIT PROPER LOCATION. DRILL HOLES IN PLYWOOD BULKHEAD F-4 FOR LANDING GEAR AND CENTER BULKHEADS IN REAR OF F-2, CEMENT BULKHEADS F-2, F-4, F-5, F-6, F-7, F-8, F-9 AND F-10 INTO PLACE MAKING SURE THEY ARE VERTICAL TO DECK. ADD KEEL F-17.

STEP 2
CEMENT KEELS F-18 IN PLACE AND ADD 3/16" STRINGERS TO REAR OF SAME AS SHOWN. COMPLETE STEP BY SLIDING MOTOR MOUNTS IN PLACE MAKING SURE THEY SEAT FIRMLY UP AGAINST BULKHEAD F-6. MOTOR MOUNTS MAY NOW BE DRILLED FOR ENGINE BOLTS. GIVE ALL JOINTS WHERE MOTOR MOUNTS JOIN BULKHEADS 2 OR 3 COATS OF CEMENT.

STEP 3
TURN FUSELAGE OVER AT THIS POINT.
BLUE BULKHEAD F-2A, F-3, F-6A, F-8A, F-9A, AND F-10A GOES INTO PLACE AS SHOWN. PUSH CABIN SIDES FROM PLYWOOD SHEET 7. CEMENT 1/2" SQUARE STRIPS ALONG BOTTOM AND ENDS AS SHOWN. NOW CEMENT CABIN SIDES INTO POSITION ON DECK AND AGAINST BULKHEAD F-6A MAKING SURE THAT THEY EXTEND OUT THE DECK AND BULKHEAD F-6A 3/16" SO THAT THEY WILL BE FLUSH WITH SHEET BALSA SKIN IS LATER ADDED TO THIS SIDE OF FUSELAGE.

STEP 4
CEMENT 1/8" SQUARE LONGERONS IN PLACE IN REAR OF CABIN. BLUE BRACE F-15 AND F-16 FIRM IN 90 DEGREE ANGLE AT LEAST 2 COATS OF CEMENT. ALSO ADD TRIANGULAR GUSSETS 4-6 IN PLACE AGAINST PLYWOOD CABIN SIDES. MOUNT LANDING GEAR USING STERLING LANDING GEAR UNITS AS SHOWN IN DETAIL DRAWING. INSERT STRINGERS IN SLOTS PROVIDED IN AGAINST BULKHEAD F-4 AND SO INTO SLOTS IN BULKHEAD F-2 AS SHOWN. BEND TAIL WIRE UP AND OVER TAIL AND DOWN AND TIGHTEN WITH WIRE TO F-13. THIS ASSEMBLY IS FIRMLY GLUED ON TOP OF BOTTOM WING AND AS SHOWN AND SEAL TAIL WIRE TO F-13 AS SHOWN IN DETAIL DRAWING. CEMENT INTO PLACE. CONTROL SYSTEM SHOULD BE INSTALLED AT THIS POINT.

STEP 5
SHEET BALSA COVERING INSTRUCTIONS.
ENTIRE FUSELAGE IS COVERED WITH 1/16" SHEET BALSA AS FOLLOWS: USING 3" X 24" PIECES COVER SIDE OF FUSELAGE FROM DECK DOWN WHEN DRY, CAREFULLY TRIM EXCESS AND COVER TOP REAR OF FUSELAGE WITH CUT-OFF PORTION. CAREFULLY CUT SLOTS IN SKIN AT THE BOTTOM OF FUSELAGE CORRESPONDING WITH SLOTS IN KEEL PIECES F-10 AS SHOWN IN DRAWING. THESE WILL RECEIVE PLYWOOD SKIN IN NEXT STEP.

STEP 6
USING 4" X 12" COVER TOP REAR OF FUSELAGE AS SHOWN. NOW MOUNT TOP PART OF TOP PART OF FUSELAGE BY SLIDING SAME INTO SLOTS SAME IN BOTTOM KEELS. EACH WING ROOT RIB SHOULD MOUNT SLIGHTLY AGAINST 1/16" SLOTS WHICH WILL HOLD IT IN POSITION. BE CERTAIN THAT PLYWOOD SPARS FOR LOWER WING ARE PUSHED COMPLETELY TO TOP OF KEEL SLOTS TO INSURE PROPER ANGLE OF INCIDENCE. CEMENT ALL POINTS OF CONTACT BETWEEN LOWER WING AND FUSELAGE GENEROUSLY. WHEN DRY, COVER ENTIRE BOTTOM OF FUSELAGE USING 4" X 22" PIECES COVER FRONT COILING SECTION AS SHOWN.

STEP 7
ASSEMBLE AND SOLDER WIRE LANDING GEAR PARTS AS SHOWN IN DETAIL NOTES. TRIM BULKHEADS F-1 AND F-2A SO THAT THEY FIT SHOULDER AGAINST INSIDE REAR OF COWL AS SHOWN IN DETAIL DRAWING. GLUE AGAINST BULKHEADS F-2 AND F-2A. ADD COWL BLOCKS F-20.

STEP 8
MOUNT COWL ON FUSELAGE AS SHOWN. NOW SAND ENTIRE FUSELAGE WITH FINE SAND PAPER UNTIL IT IS PERFECTLY SMOOTH AND FINISH SECTION SMOOTHLY INTO COILING. COMPLETE LANDING GEAR BY CONSTRUCTING WHEN PARTS AND BALSA LANDING GEAR STRUTS, MOUNT THESE IN PLACE AND ADD COILING STRINGS AS SHOWN IN DETAIL DRAWING. THE REAL WORK BALANCED SECTIONS AS SHOWN IN DETAIL DRAWING. THE REAL WORK BALANCED SECTIONS AS MADE STRAIGHT UP BALANCED IN THE OBSERVATION OF THE MODEL BUILDER. FREELY AND REAR WHEEL IS OFF-SET 1/2" TO OUTSIDE OF CIRCLE FLOW. IF TAIL WHEEL IS USED, ADD SAME AND REMAIN IN PLACE WITH DROP OF SOLDER. BOTTOM OF TOP PART OF FUSELAGE SHOULD BE SMOOTH AND PERFECTLY FIT. GIVE ALL WING STRUT JOINTS AND WING ATTACHMENT JOINTS 2 OR 3 COATS OF CEMENT. REMOVE COWL AND CUT OUT TOP OF SAME FOR ENGINE.

LOWER WING CONSTRUCTION NOTES

STEP 1
IT IS IMPERATIVE THAT LOWER WING BE CONSTRUCTED DIRECTLY ON DRAWING AS FOLLOWS: PLACE LEADING AND TRAILING EDGES INTO POSITION. ADD ALL OUT CENTER SECTION RIBS. DOUBLE RIBS SHOULD BE CEMENTED IN PLACE AT AN ANGLE OF 90 DEGREES USING DIL-DB PATTERN FROM SHEET 3 DIRECTLY ABOVE WING GUSSETS W-3 AS SHOWN ON VIEW. ADD WING TIP STRUCTURE AS IN UPPER WING CONSTRUCTION. USING A 3/16" BLOCK, SHAPE TIP FLOOR. ADD GUSSETS W-12. ALLOW TO DRY THOROUGHLY.

STEP 2
FIT LOWER WING PLYWOOD GUSSETS W-13 AND W-14 INTO POSITION AND RAISE WING TIPS IN LINE WITH ANGLE OF PLYWOOD GUSSETS SO THAT THERE IS 1/16" DIAGONAL UNDER EACH TIP. ADD CENTER SECTION RIB TO INSIDE OF EACH PANEL MAKING SURE THEY ARE VERTICAL. IT IS IMPERATIVE THAT THE SPACING BETWEEN THESE TWO CENTER SECTION RIBS BE ACCURATE FOR LOWER WING WILL LATER BE SLIP INTO FUSELAGE AND FUSELAGE WILL FIT SNUGLY BETWEEN THEM. AS EXPLAINED IN STEP 6 OF FUSELAGE CONSTRUCTION. ALLOW ENTIRE STRUCTURE TO DRY THOROUGHLY. FINISH LOWER WING BY CARVING TIPS AND SANDING ENTIRE STRUCTURE SMOOTHLY. COVER WITH SILKSPAN AS DESCRIBED IN UPPER WING CONSTRUCTION. APPLY 2 COATS OF CLEAR DOPPE.

STABILIZER CONSTRUCTION NOTES

IN ORDER TO KEEP THIS MODEL TO SCALE, BALANCED SECTIONS S-2 MUST BE CEMENTED TO ELEVATION S-3 AND S-2 CEMENTED TO RUBBER F-3 RESPECTIVELY. IF SCALE EFFECT IS NOT A NECESSITY, THE S-1 AND S-2 AND S-1 AND S-2 MAY BE CEMENTED TOGETHER TO KEEP THE WING LINE STRAIGHT. CEMENT SURFACES TOGETHER AS DESCRIBED. SAND RUBBER AND RUBBER ASSEMBLY TO STREAMLINE SECTION AS SHOWN ON SIDE VIEW. MOUNT CONTROL HORN ON ELEVATOR (SEE DETAIL). CEMENT HINGE IN PLACE. CEMENT RUBBER TO FIRM MAKING SURE THAT RUBBER IS OFF-SET 1/2" TO OUTSIDE OF CIRCLE FLOW.

CONTROL LINE INSTALLATION DETAIL

CONTROL MECHANISM IS NOT INCLUDED IN KIT. PARTS OR COMPLETE ASSEMBLY MAY BE PURCHASED AT ANY HOBBY DEALER. CONTROL SYSTEM IS MOUNTED ON PLYWOOD CONTROL MOUNTING PLATE F-12. DRILL HOLE FOR HOOP ON TOP VIEW. SLIP WASHER OVER MACHINE SCREW AND INSERT THROUGH BOTTOM OF PLYWOOD PLATE. WASHER MUST BE SECURED TO PLATE WITH WASHER AND NUT BEING TIGHTENED FROM TOP. RUBBER MUST BE IN PLACE TO PREVENT LOOSENING. UNIT IS THEN VIEWED FROM SIDE AS SHOWN IN STEP 6 SKETCH AS WELL AS SIDE AND TOP VIEW DRAWINGS. IT WILL BE NECESSARY TO NOTCH DECK SLIGHTLY FOR MACHINE SCREW HEAD SO THAT ASSEMBLY WILL CEMENT FLAT ON DECK. PREPARE BELL CRANK FOR INSTALLATION BY ATTACHING LEAD-OUT-CABLES THROUGH HOLES IN SAME AS SHOWN ABOVE AND IN LOOP DETAIL. CABLE LENGTH SHOULD BE LONG ENOUGH TO EXCEED HOOP. FRONT UPPER WING TIP WHEN WING IS IN PLACE ON FUSELAGE. CONTROL ROD IS A 1/16" BEAD LENGTH OF 1/2" LONGER THAN 1/2" BEAD FROM FRONT END OF ROD DOWN AS SHOWN. FRONT LOWER WING TIP WHEN WING IS IN PLACE FOR BEARING SURFACE. INSERT SPUR THROUGH HOLES IN BELL CRANK. SOLDER WASHER TO END OF SPUR TO SECURE ROD IN BELL CRANK. A 1/16" DIAMETER BRASS CARDBOARD SHOULD BE INSERTED BETWEEN WASHER AND BELL CRANK BEFORE SOLDERING TO PROVIDE CLEARANCE FOR FREEDOM OF MOVEMENT. CUT OFF EXCESS ROD LENGTH PROTRUDING FROM WASHER. COVER FUSELAGE AS DESCRIBED IN STEP 6. STEP 6. LOCATE AND CUT OUT SLOT FOR CONTROL ROD AS SHOWN. LOCATE AND CUT OUT SLOT FOR FUSELAGE SO THAT IT MAY BE ENGAGED COMPARTMENT. RUB TAIL WIRE INTO BELL CRANK AND DRILL HOLES IN CABIN SIDE TO ALLOW LEAD-OUT-CABLES TO PASS THROUGH. INSERT CONTROL ROD THROUGH FUSELAGE AND

LEAD OUT SLOT FOR SAME IN REAR. SLIP LEAD-OUT-CABLES THROUGH HOLES IN CABIN SIDE. MOUNT BELL CRANK ASSEMBLY ON CONTROL MOUNTING PLATE F-12. DRILL HOLES WHICH ARE TIGHTENED TOWARD EACH OTHER. THERE SHOULD BE CLEARANCE BETWEEN WASHER AND BELL CRANK TO ALLOW FOR FREEDOM OF OPERATION. NUTS SHOULD BE SOLDERED TO PREVENT LOOSENING. COMPLETE MODEL AS DESCRIBED ON DRAWING. MAKE WING GUIDE FROM SCRAP PLYWOOD IN KIT. SECURELY FASTEN WING GUIDE TO OUTER STRUT (TOWARD INSIDE OF CIRCLE FLOW) BY CEMENTING SECURELY. IT MAY ALSO BE SECURED BY WRAPPING WITH THREAD OR WIRE ON THE SIDE OF THE MACHINE SCREWS AND NUTS AS SHOWN. HOLES IN GUIDE SHOULD BE THE SAME WIDTH AS BELL CRANK HOLES SO THAT HOLES GUIDE SHOULD BE MOUNTED SO THAT HOLES ARE SAME LEVEL AS BELL CRANK WHEN VIEWED FROM FRONT. HOLES IN GUIDE MUST BE IN SAME POSITION AS THAT SHOWN ON END OF LEAD-OUT-CABLES. ANY OTHER WING GUIDE DESIGN MAY BE USED HOWEVER, IT MUST BE STRONG. A WEAK WING GUIDE WHICH WILL COLLAPSE IN FLIGHT MAY BE THE CAUSE OF A SEVERE CRASH. FAN ELEVATOR AND BELL CRANK IN NEUTRAL POSITION AS DRAWN ABOVE. MAKE LOOPS ON LEAD-OUT-CABLES ABOUT 2" PAST WING GUIDE AS SHOWN. BOTH CABLES SHOULD BE THE SAME LENGTH. REAR CONTROL ROD TO EXACT LENGTH, ENGAGE AND SCORE IN CONTROL HORN WITH WASHERS IN SAME MANNER AS BELL CRANK. BE CERTAIN TO LEAVE CLEARANCE FOR FREEDOM OF MOVEMENT. ALL LEAD-OUT-CABLES THROUGH HOLES IN WING GUIDE. CHECK SYSTEM FOR FREEDOM OF OPERATION BY PULLING ON LEAD-OUT-CABLES. SYSTEM SHOULD BE CHECKED BEFORE EACH FLIGHT.

CAUTION:

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

REAR WIRE STRUT RIDES FREELY TURN BOTTOM SKIN AS SHOWN.
BIND ALL LANDING GEAR JOINTS WITH SOFT WIRE WHEN SOLDER SECURELY.
RECESS FOR ENTIRE 1/16" WIRE SPUR.
RECESS BALSA STRUT SO THAT ALL WIRE STRUTS COVERED BY SKIN ARE IMBEDDED SKIN FIRM.

WHEEL PARTS ARE OPTIONAL. BALDWIN TYPE WHEELS MAY BE USED MINUS PARTS.
CONTINUATION OF CENTER WIRE STRUT BENT DIRECTLY TO REAR. RECESS INTO SIDE OF WHEEL PART.

REAR SHOCK STRUT DETAIL.
REAR WIRE STRUT IS PLACED THROUGH HOLE IN FUSELAGE AT BOTTOM JOINT ONLY. TOP OF WIRE STRUT IS LEFT TO RIDE FREELY THRU HOLE IN FUSELAGE.

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A 33" SCALE CONTROL LINE MODEL FOR B-C ENGINES



KIT C-4

1/8/1948

U.S.A.