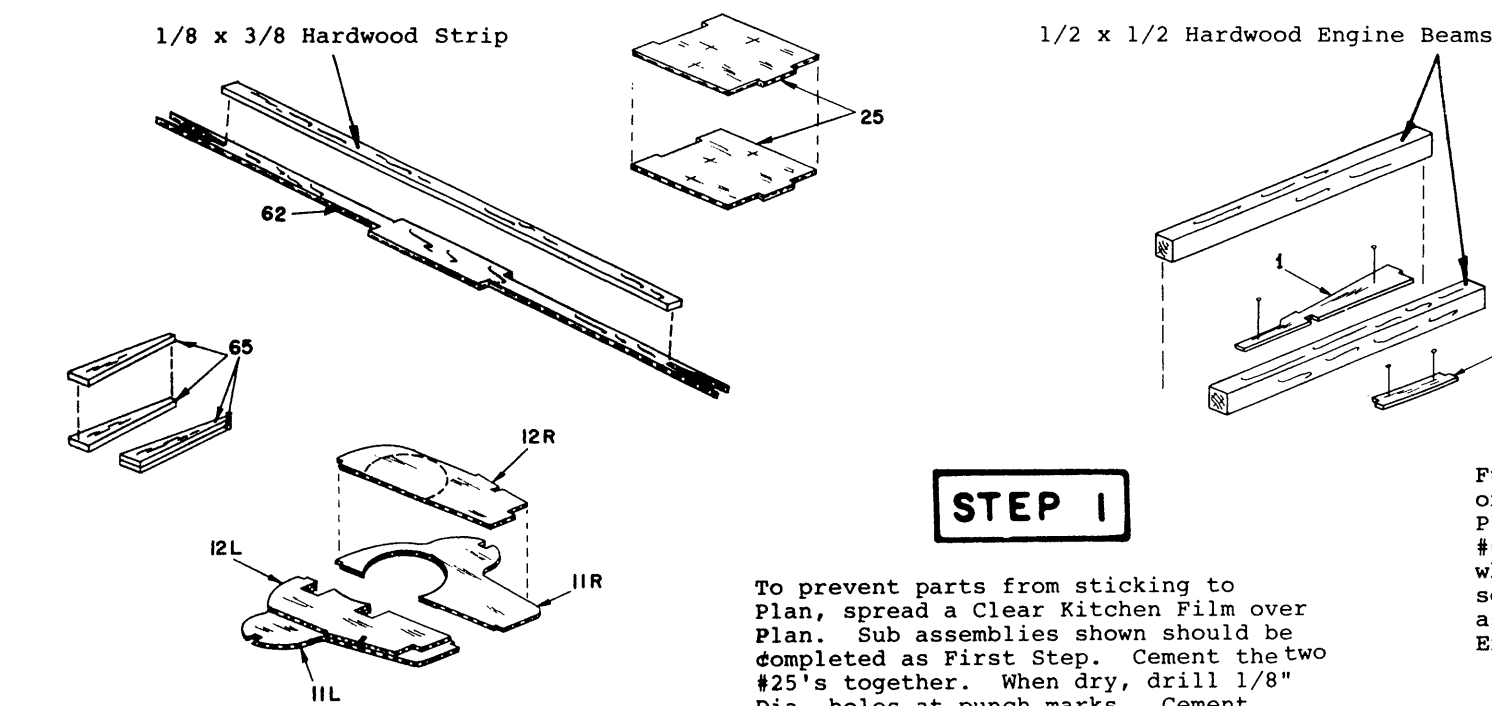


FUSELAGE ASSEMBLY



FINAL ASSEMBLY

Stabilizer and Elevator, which are assembled as described in Detail Note, are now joined to finished, sanded and covered Fuselage. Slip Elevator through Slot at Rear of Fuselage followed by Stabilizer. Join Stab and Elevator with Hinges then cement Stabilizer to Fuselage checking alignment carefully. Drill a 1/16 dia. hole into finished Rudder to receive Tail Gear Spur then hinge Rudder in place. Slip Wing Panels onto protruding Main Spars and carefully check positioning and alignment. **SEE SIDE VIEW.** Covering Material should be removed from this contact area for a strong Wood to Wood Joint. Remove Wings and coat contacting areas with a liberal amount of cement. Be Sure Spar is coated with cement and then install Wings. **BE CERTAIN** Side Panel of Fuselage and Wing Rib fit well and joint is securely cemented. Allow to dry thoroughly and check alignment occasionally during drying. Assemble Plastic Cowl and Wheel Pants as described in Detail Note. Slip Cowl over front of Fuselage and mark off Rear location on Top of Wing. Cement #63 to each Side of Fuselage directly in Front of this mark followed by the Wing Fairings #64 as shown. **NOTE:** Cowl fits over Front of this Fairing Section. Model is now painted. Full Size Drawings and Pictures on Box Lid show Scale Color Scheme and Decal locations. Picture on end of box lid is a Photo of the Real Aircraft which can be used for Color Match and Documentation. Canopy on the Real Airplane has Blue Tinted Windshield. This can be duplicated by using Blue Rit Fabric Dye on the Clear Plastic Canopy. **BE SURE** to wash Canopy with a mild non-abrasive hand soap and rinse thoroughly before dyeing. Don't forget to Paint the Cowl, Wheel Pants, Canopy and removable Bottom Hatch. Hatch is held in place by Front 1/16" Dowel Pins and Top Screws into hardwood Strip in back. Cut recessed area from Plan and cement in place in cockpit. Cement Canopy in place. Install 1/2" dia. Tailwheel (not supplied). 2-1/4" Dia. Main Wheels (not supplied) are slipped into finished Wheel Pant and mounted to Landing Gear using the 6/32 Screws and Nuts. Model is built to use a Pylon Brand 4 oz. Round Fuel Tank (not supplied). It will be necessary to Bevel the Inner Rear Edges of the Engine Beams to allow Tank to slip in place, see Engine and Tank Detail Photo. Then mount Engine of your choice, Finished Cowl, Prop and Spinner. Radio Equipment (not included in kit) is now installed in accordance with manufacturers instructions. Typical position has Battery Pack under Fuel Tank. Receiver and Aileron Servo between Bulkheads #14 and #15. Elevator and Rudder Servos between Bulkheads #15 and #16. Throttle Servo between Bulkheads #13 and #14. These locations however, can and should be altered to aid in Balancing Model. **IT IS IMPERATIVE THAT MODEL BALANCES AT POINT SHOWN ON SIDE VIEW.** If necessary add weight to Front or Rear to achieve Balance. **Note:** Model is always Balanced with an empty Fuel Tank. This completes your Real Sporty. Good Luck and Many Happy Flights.

To prevent parts from sticking to Plan, spread a Clear Kitchen Film over Plan. Sub assemblies shown should be completed as First Step. Cement the two #25's together. When dry, drill 1/8" Dia. holes at punch marks. Cement Bulkheads #11L and 12L together and do likewise with #11R and #12R. Be sure Bulkheads are assembled as shown in sketch to assure the Left and Right Hand configuration. Cement two #65's together as shown and make two of these assemblies. Cement the 1/8 x 3/8 Hardwood Strip to #62 as shown.

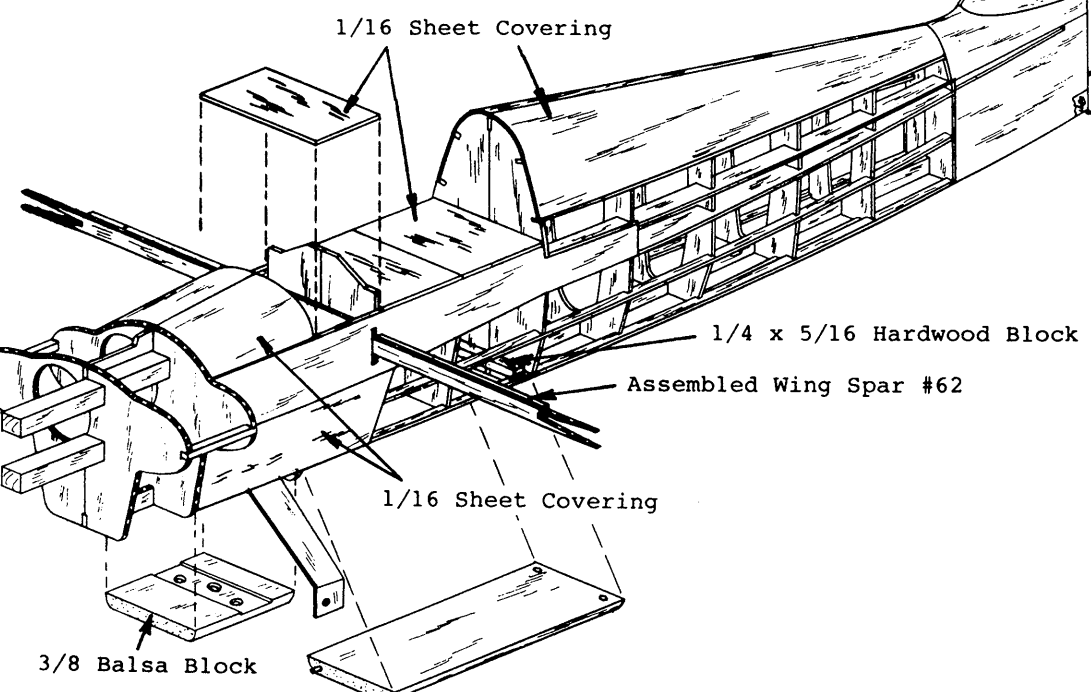
Fuselage, with Vertical Fin, is built on Flat Building Board directly over Plan. Pin parts #1 to #9 as well as #66 to Plan, cementing them together where they join. Cut a length of 1/8 sq. Strip and Cement in place on Pin as shown. Lay the 1/2 x 1/2 Hardwood Engine Beams in place.

Step #3 and Step #4 must be done one after the other to prevent Glue from setting before Side Keels and Stringers are installed. Cement all Bulkhead Halves #10 thru #21 vertically in place. Be Sure you use #11L and #12L. Add the Short Section of 1/8 sq. to Pin. Cement Side Keels #22's into Bulkhead notches from #14 to #21; then immediately.....

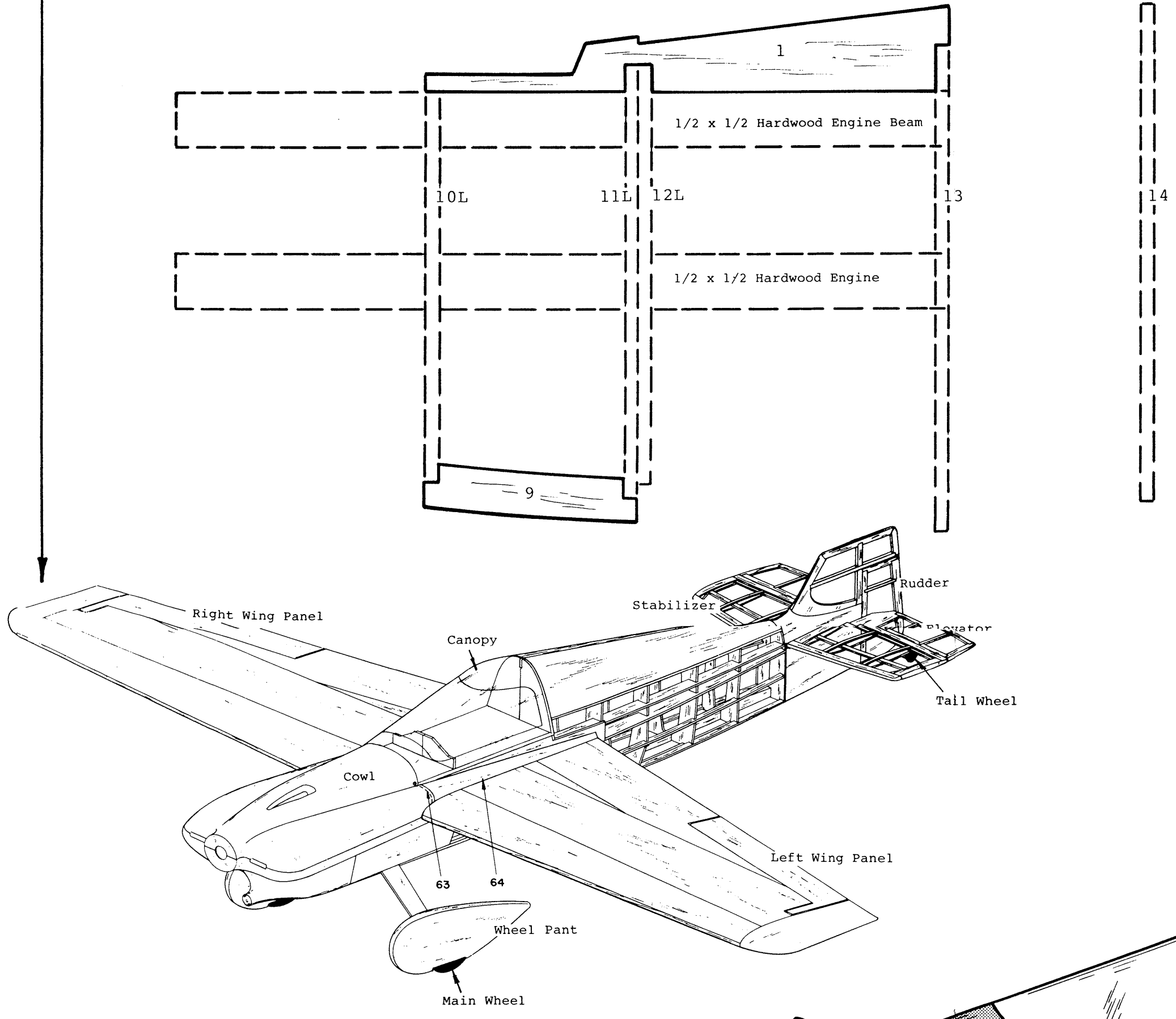
Cement Side Plate #23 in place as shown from #12L to #17. Cut a length of 3/16 sq. Balsa and cement into notches from #10 to #11L. Cut the two 1/8 x 3/16 Top Stringers to length and cement in place. Do likewise with the three Bottom Stringers cut to length from 1/8 x 1/4 Strips. Note that the Front and Rear portions of the First 1/8 x 1/4 Stringer are uncut 1/16" to provide Step for future assembly as well as Rear Portion of Corner 1/8 x 1/4 Stringer.

1/8 sq. Strip
1/8 x 3/16 Stringers
1/8 x 1/4 Stringers
Step for Sheet Covering

Remove Frame from Building Board and complete opposite Side of Fuselage in same manner described in Steps 3 and 4. **DO NOT MAKE ANOTHER FUSELAGE CENTER FRAME ASSEMBLY.** THESE BULK-HEAD HALVES ARE CEMENTED TO THE FUSELAGE FRAME YOU HAVE JUST REMOVED FROM BUILDING BOARD! Bolt the Landing Gear to assembled #25 and then cement #25 in place as shown. Bevel Rear of #24 to knife edge and then cement #24 in place. Bevel Rear of #26 and cement in place. Top Front Section of #26 can be moistened with water to aid bending without cracking. Check alignment of Fuselage now and allow Framework to dry thoroughly before continuing.



Using 1/16 x 3 x 13 Balsa Sheets cover Top Front and Rear of Fuselage as shown. Cover Front Sides from Bulkhead #12 to behind #14 as shown. Note that Side Covering is cut at Scale Angle as shown in sketch and on Side View. Notch out the 3/8 x 3 x 2-5/8 Lower Block to Clear Landing Gear and Bolts. Then cement Block in place against Bottom of #25's between #11 and #13. Install Tail Gear as shown and described in Detail Note. Slip assembled Wing Spar #62 thru Side Plates and cement in place. Using 1/16 x 3 x 13 Balsa, Cover Top of Cockpit area as shown. **NOTE:** Assembled Rudder and Removable access Hatch are shown in this sketch for clarity only. They are installed in Final Assembly. Cement the 1/4 x 5/16 x 1-1/2 Hardwood Block across #16, 5/16" up from Bottom of #16. Allow Fuselage to dry thoroughly then sand smooth and cover with material of your choice (not supplied).

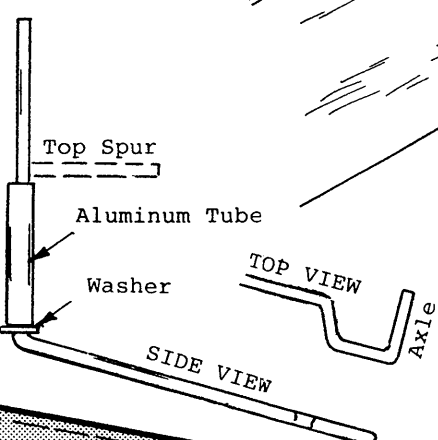


SPECIAL THANKS

To the crew of Real Sporty: without their tremendous help and co-operation the development of this model would not have been possible.
Paul Musso - Owner, Pilot
Chuck Andrews - Race Pilot
Steve McBride
Bud McNally - Crew

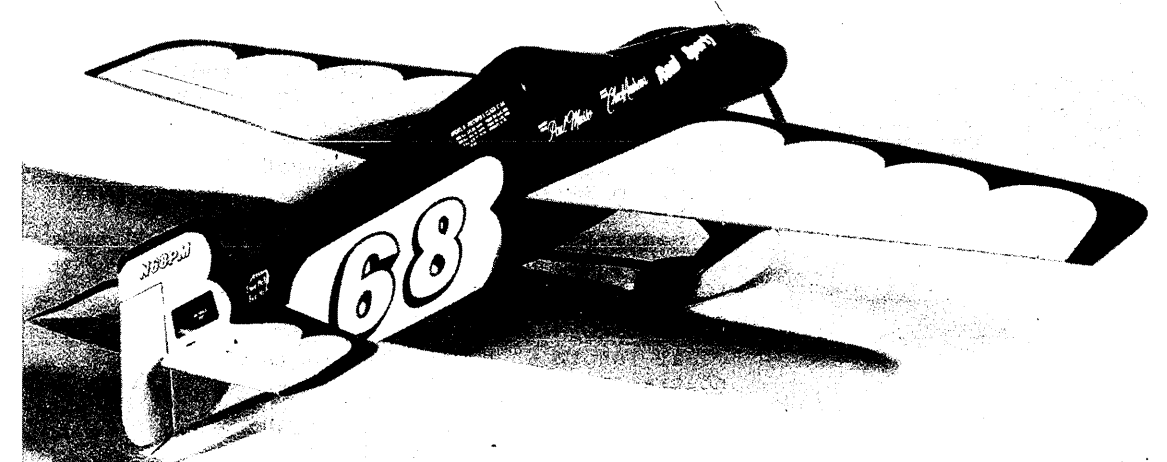
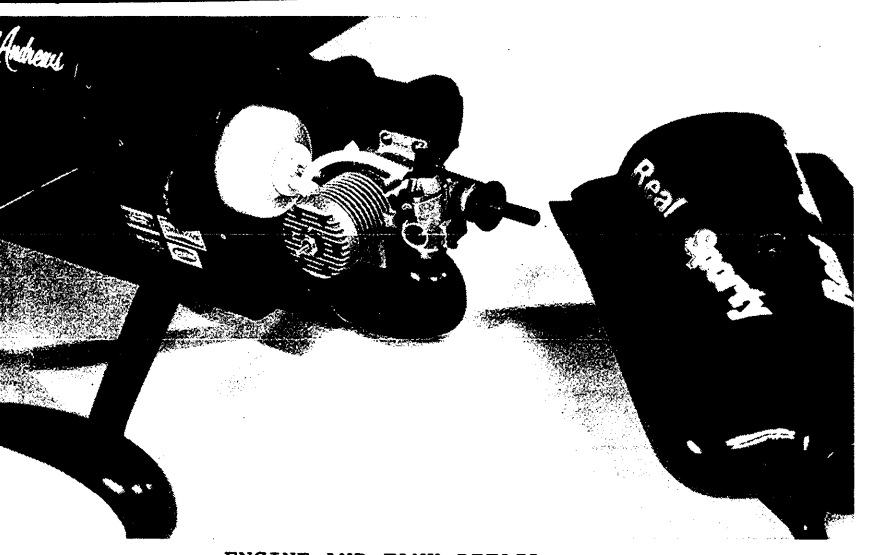
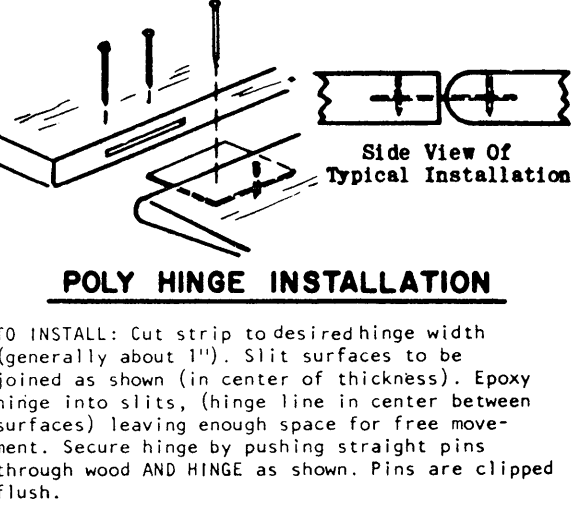
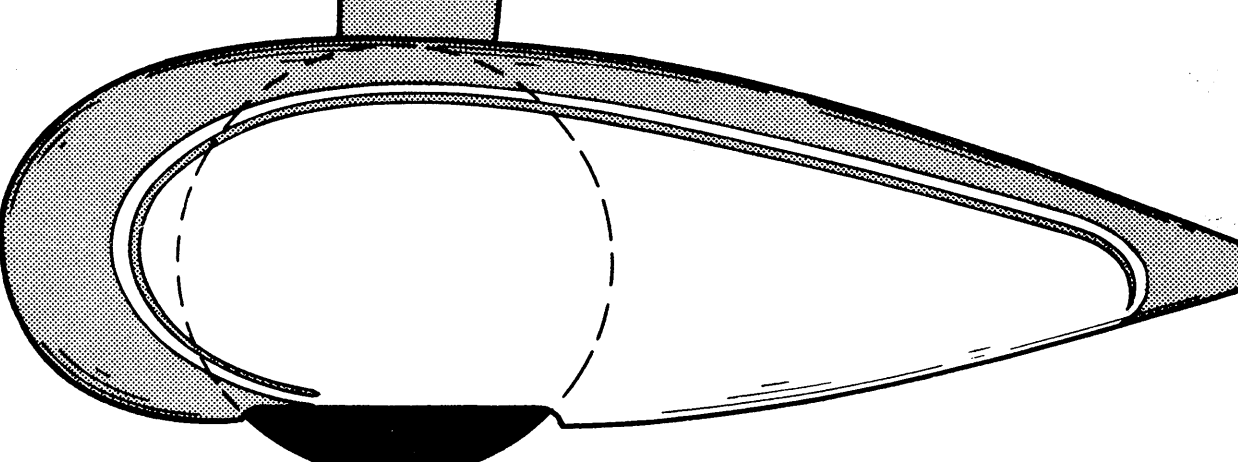
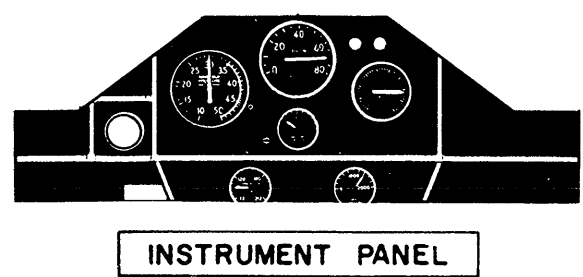
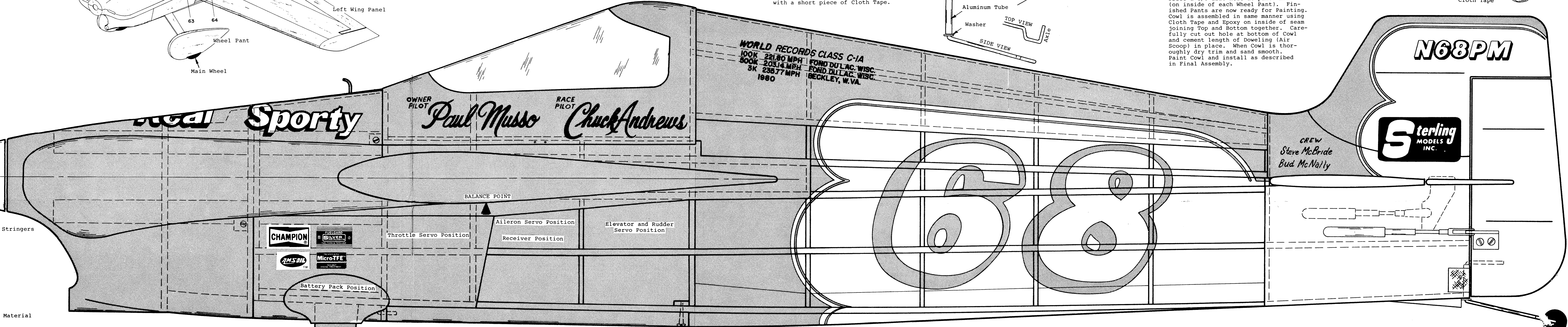
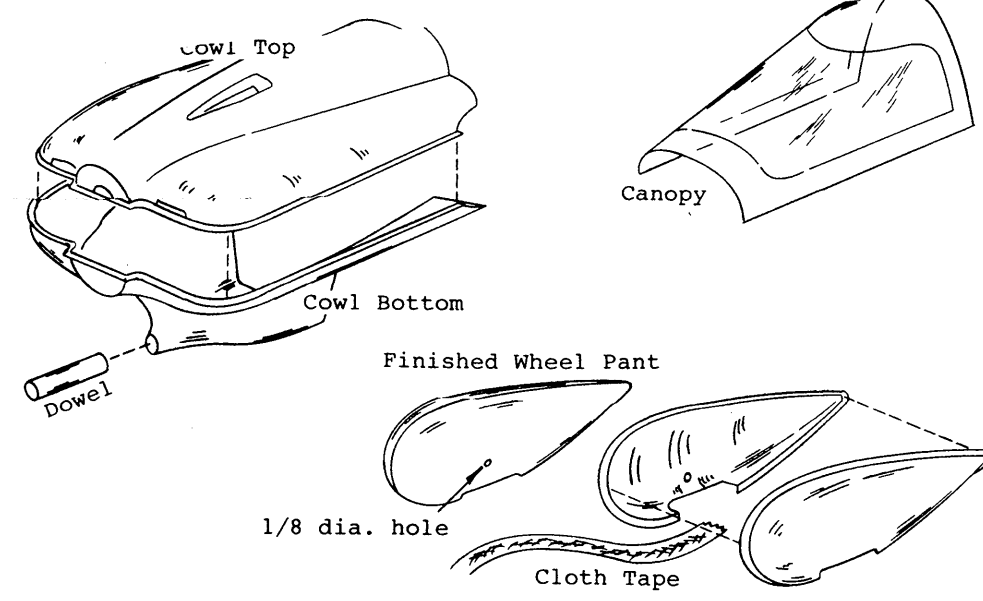
TAIL GEAR DETAIL

Drawing shows how Tail Gear is mounted to Rear of Fuselage. First Bend Bottom portion of Gear (using 1/16 dia. wire). Slip Small Washer on wire and solder as shown. Slip 3/4" length of Aluminum Tubing over Top of Wire, then Bend Top Spur. Notch out Rear of Fuselage (#7) to receive Tubing, then cement Tubing in place and reinforce with a short piece of Cloth Tape.



PLASTIC PARTS DETAIL

First - Wash all Plastic Parts carefully with a mild NON-ABRASIVE hand soap and rinse thoroughly. Clear Canopy is trimmed carefully to fit finished Fuselage. Wheel Pants are assembled by Trimming excess Plastic from around Pants. **Note:** Be certain you keep the Halves matched as milled in order to have a Left and Right Wheel Pant. Using a rough Sandpaper, sand over contacting areas of Plastic and cement Halves together. Entire seam is reinforced by Epoxying a length of Cloth Tape over inside of seam. When completely dry, trim off excess Plastic then sand smooth. Drill a 1/8 dia. hole at punch mark (on inside of each Wheel Pant). Finished Pants are now ready for Painting. Cowl is assembled in same manner using Cloth Tape and Epoxy on inside of seam joining Top and Bottom together. Carefully cut out hole at bottom of Cowl and cement length of Doweling (Air Scoop) in place. When Cowl is thoroughly dry trim and sand smooth. Paint Cowl and install as described in Final Assembly.



REAL SPORTY

Kit FS-38

Wingspan: 40 5/16"

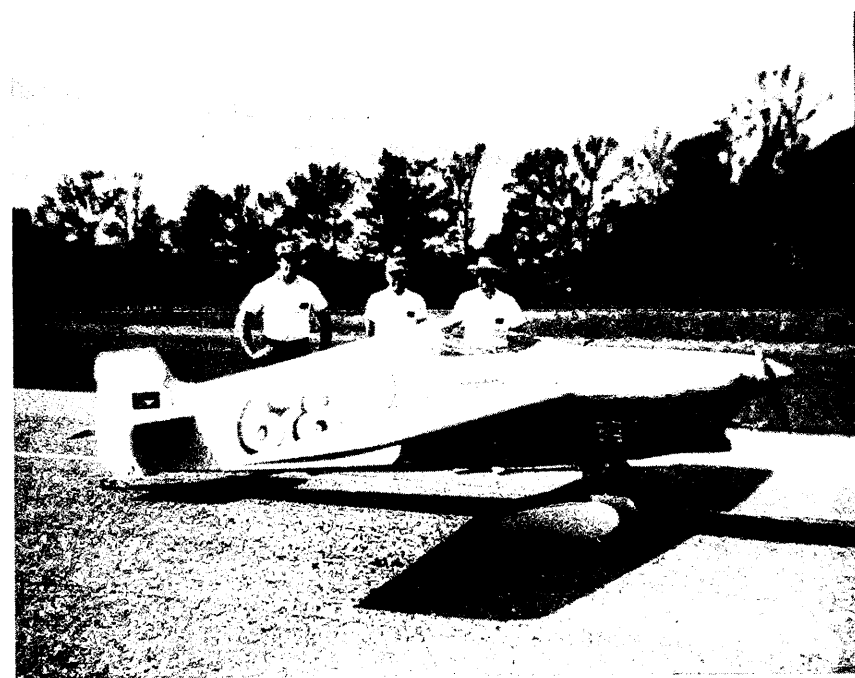
Scale: 2 1/8" = 1 ft.

For .15 to .25 Engines

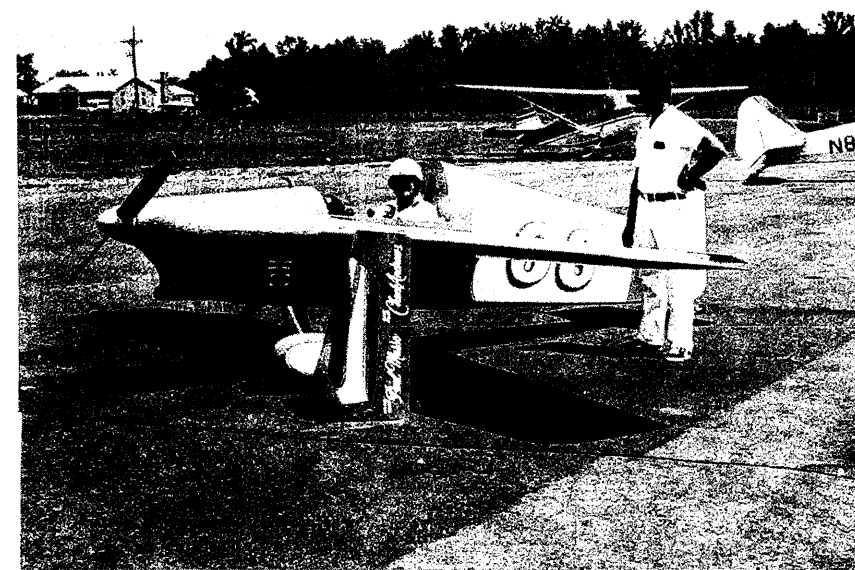




Real Sporty with Tow Truck and Trailer

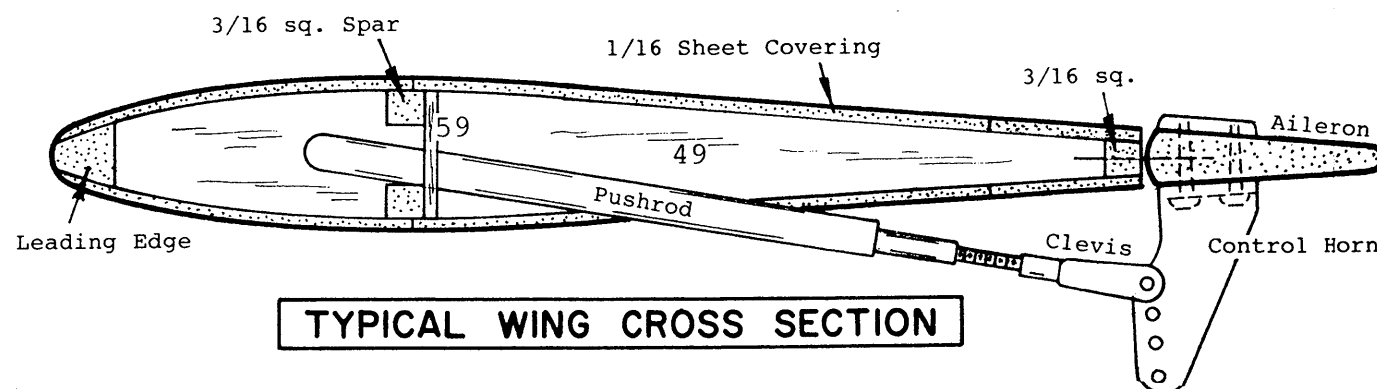
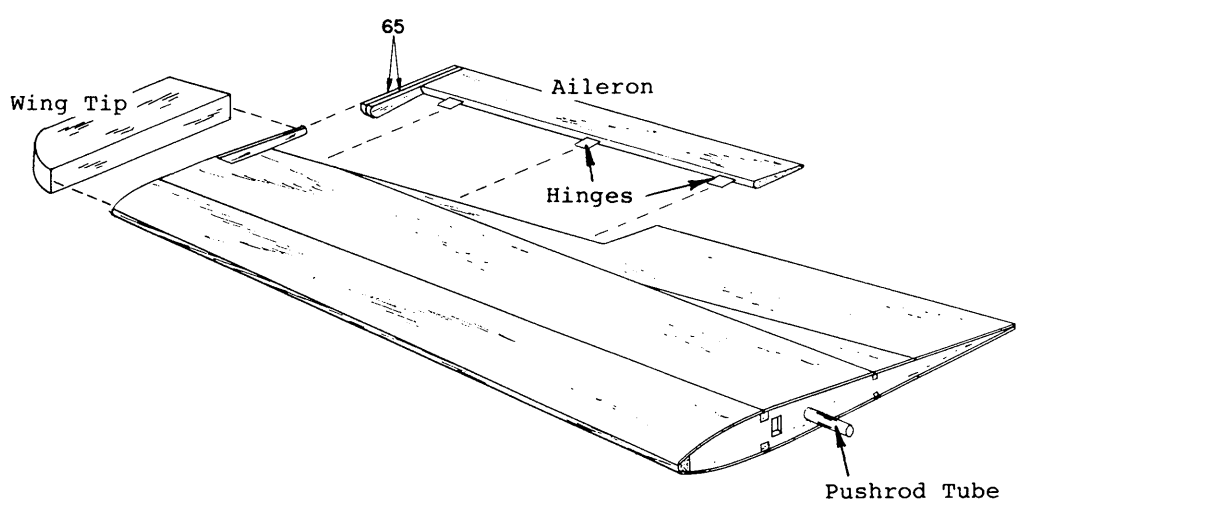
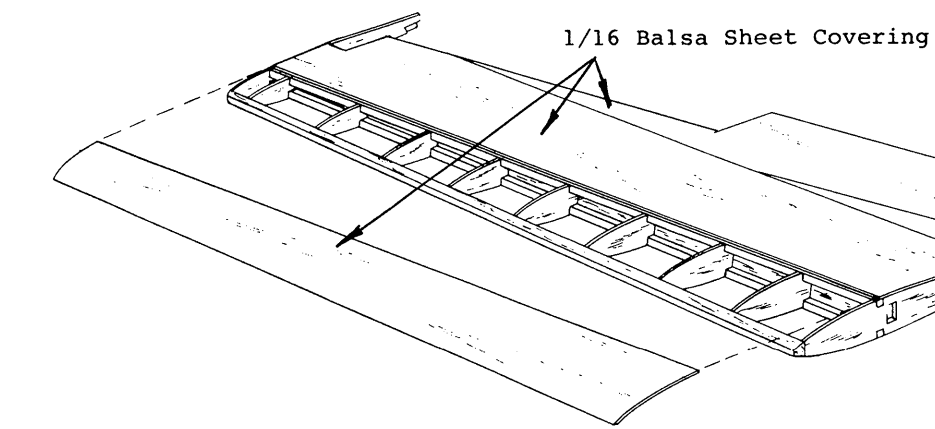
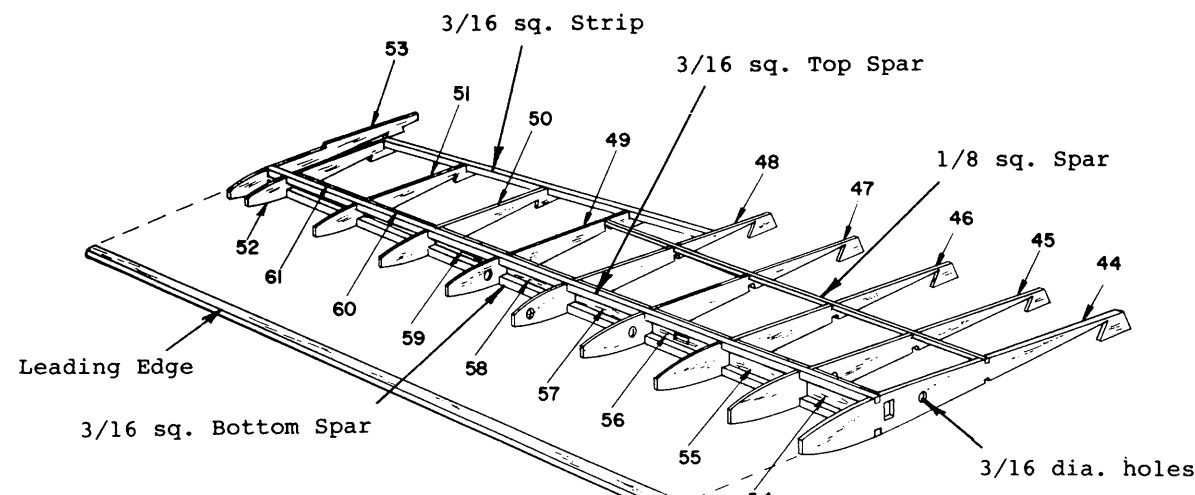


Steve, Bud and Paul on the Flight Line with Real Sporty



Chuck all strapped in - Need the Lid Steve

WING ASSEMBLY



TYPICAL WING CROSS SECTION

STEP 1

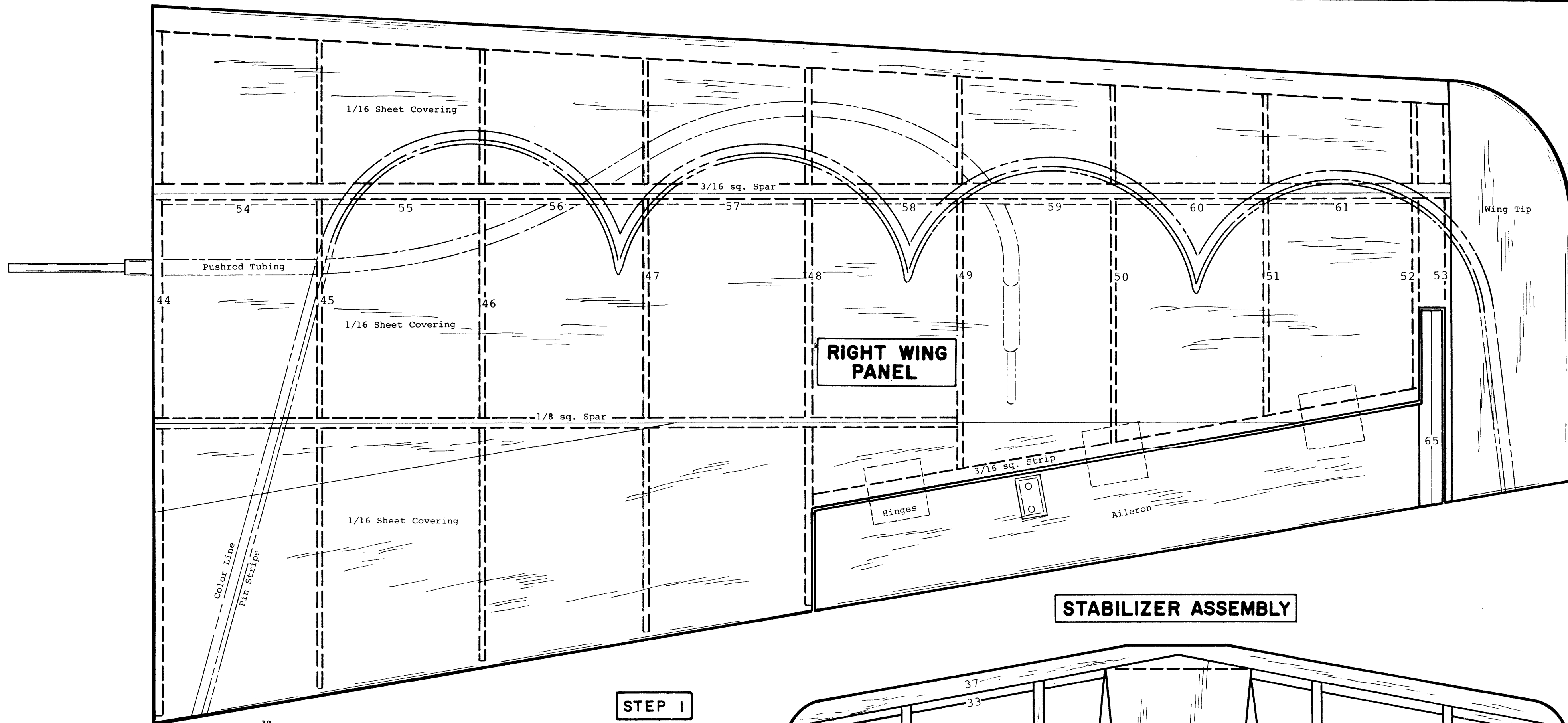
Select a Flat Building Board to insure a non-warpy True Wing. Sketches show assembly of Right Wing Panel. Both Left and Right Wing Panels are built in same manner directly over Plan. Cut 3/16 sq. Lower Wing Spar to length and Pin in place. Drill 3/16 holes at punch marks then cement all Ribs in place by the number shown. If model is being built for Control Line, Mark and Drill Hole Locations on Left Ribs only. Cement the Top 3/16 sq. Spar in place. Pin and cement Leading Edge to Front of Ribs (centered) as shown. Cut a length of 3/16 sq. Strip for Trailing Edge at Aileron and cement to rear of Ribs but not to Building Tabs as shown. Cut Top Rear Spar to length from 1/8 sq. and cement in place. Cement Vertical Webs #54 to #61 in place between Ribs and against Rear of Main Spars as shown. Allow to dry thoroughly.

STEP 2

Using 1/16 x 3 x 18 Balsa Sheets, cover Top of Wing as shown. Trim sheets as shown in sketch and on Full Size Plan and pin and cement them in place. Note that the two main seams fall on the 3/16" and 1/8" Spars for a strong joint. BE CERTAIN to remove all pins from framework as you sheet cover Wing so that Panel can be removed from Building Board when dry. Pins used for Sheet Covering should extend through Framework to Board to keep Wing down on surface while drying.

STEP 3

Remove Wing Panel from Building Board. Thread a piece of larger diameter Pushrod Tubing through holes in Ribs and notches in Webs and cement in place. If model is being built for Control Line Flying this Pushrod Tubing does not have to be installed. Carefully remove Building Tabs from back of Ribs, Cement Lower 1/8 sq. Spar in place then, Sheet Cover Bottom of Wing in same manner as Top, cutting out for Pushrod Tubing exit as shown in Full Size Wing Drawing. Pin Wing back on Board while drying. Cement Wing Tip Block to end of Wing and when dry sand entire Wing smooth rounding off Leading Edge and Tip to proper cross-section. Fit an Aileron in place, then cement assembled #65's to outer end of Aileron as shown. When dry sand Aileron smooth and hinge in place. On Control Line models Ailerons can be cemented in place. NOTE: it is much easier to cover individual parts with Covering Material of your choice before assembling them to one another permanently. You must, however, make sure all parts do fit properly before covering. Left Hand Wing Panel is built in same manner as Right and both are cemented to Fuselage in Final Assembly Step. If model is being built for Control Line flying, 1 oz. of weight (fishing sinker) must be securely cemented into Right Hand Wing Tip as shown on Control Line Detail.



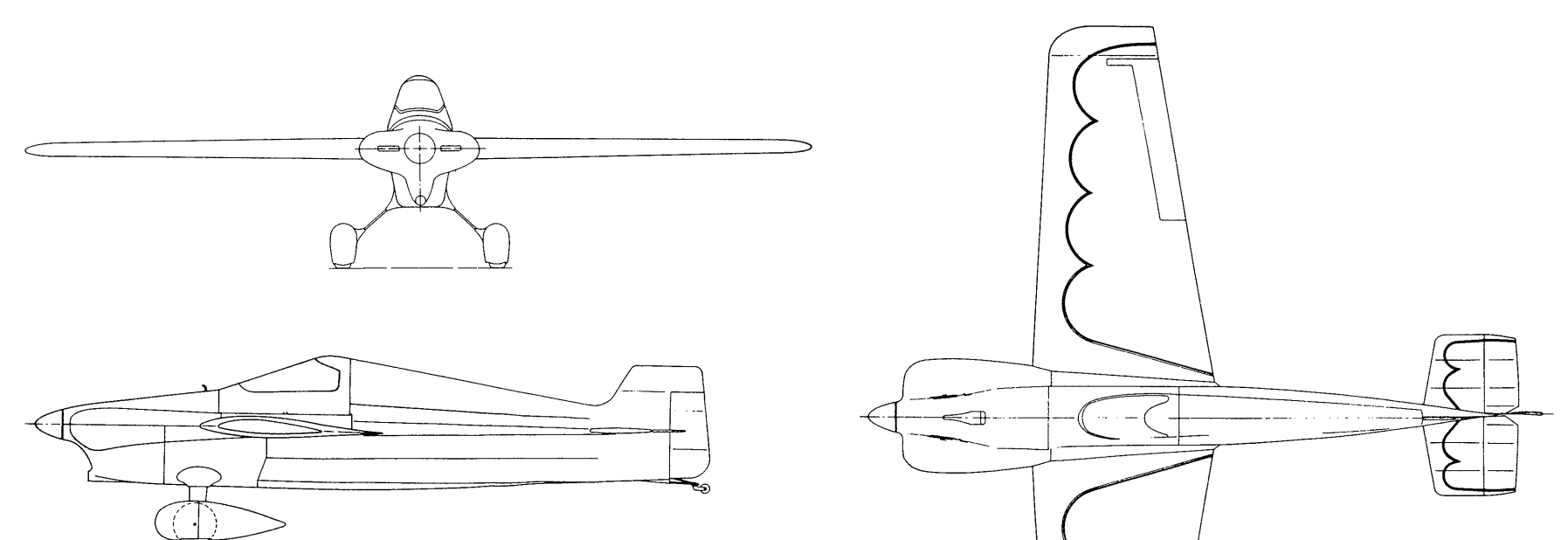
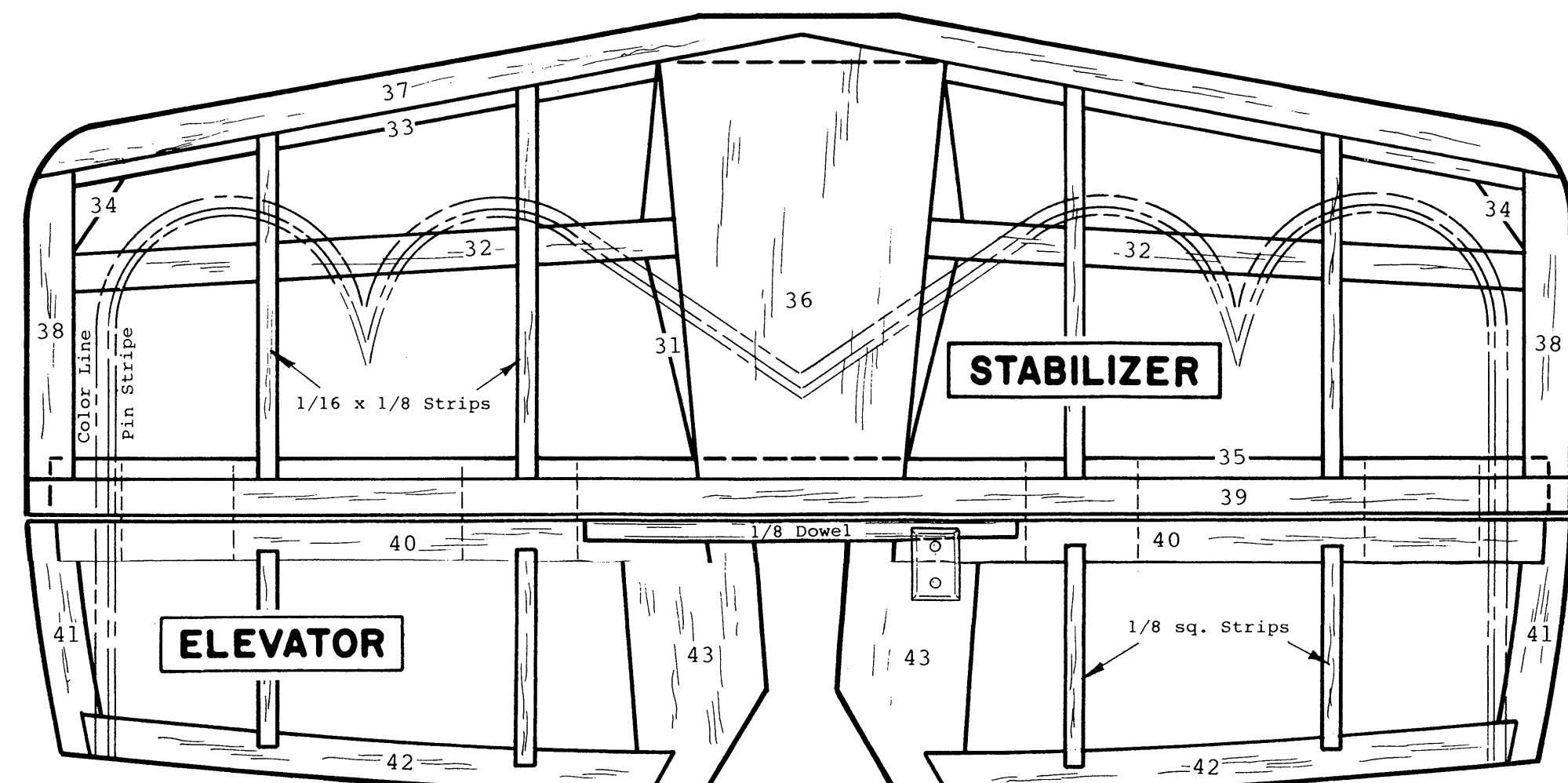
STABILIZER ASSEMBLY

STEP 1

Stabilizer is built by first pinning parts #31 to #35 to Board and cementing them together where they join. Note that due to different thicknesses of pieces, parts #33 and #35 must have 1/32" thk. shims (not supplied) placed under them so they are centered on other parts. When thoroughly dry remove Framework from Board and cement a set of Parts #36 to #39 to both Top and Bottom of Center Framework. Pin assembly back down to Building Board and allow to dry thoroughly.

STEP 2

Elevator is assembled by pinning parts from #40 to #43 to Plan cementing together where they join. Cut pieces of 1/8 sq. to length and cement in place. Cement the length of 1/8 dia. Dowel securely in place to join Elevators. Finish Stabilizer by cutting pieces of 1/16 x 1/8 Balsa Strips to length and cementing them in place on ledge formed at Leading and Trailing Edges of Stab. Strips will have to be slightly bowed over. Spars #42 to create seal airfoil. When thoroughly dry Stab and Elevator can be sanded smooth and covered. Hinges are prepared and temporarily installed. Elevator and Stab CANNOT be joined until they are assembled to Fuselage in Final Assembly.



SCALE DETAILS AND SPECIFICATIONS

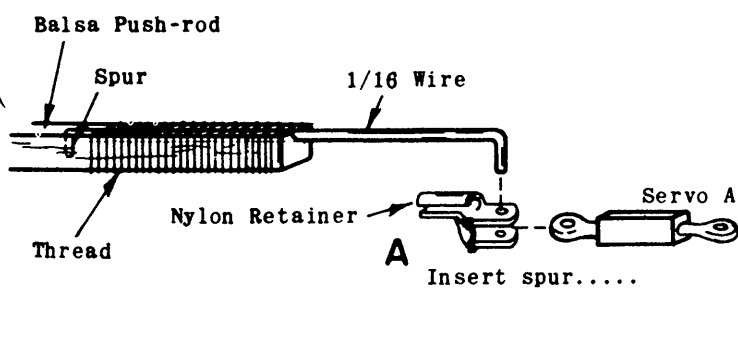
Span.....16"11-1/2"
Length.....17"
Height.....47"
Engine.....Continental O-200-A
4 cyl. 200 cu. in.
600 hp. @ 2550 rpm
Propeller.....Sensenich 58-BX-64
Top Speed.....265 mph

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 High Tension Lines or any Electrical Lines.
- Model should never be flown when thunder and lightning storms are in the area.
- Precautions should be taken to insure the safety of all spectators, modeler and property. Sterling Models, Inc. Phila., Pa., 19134, U.S.A.

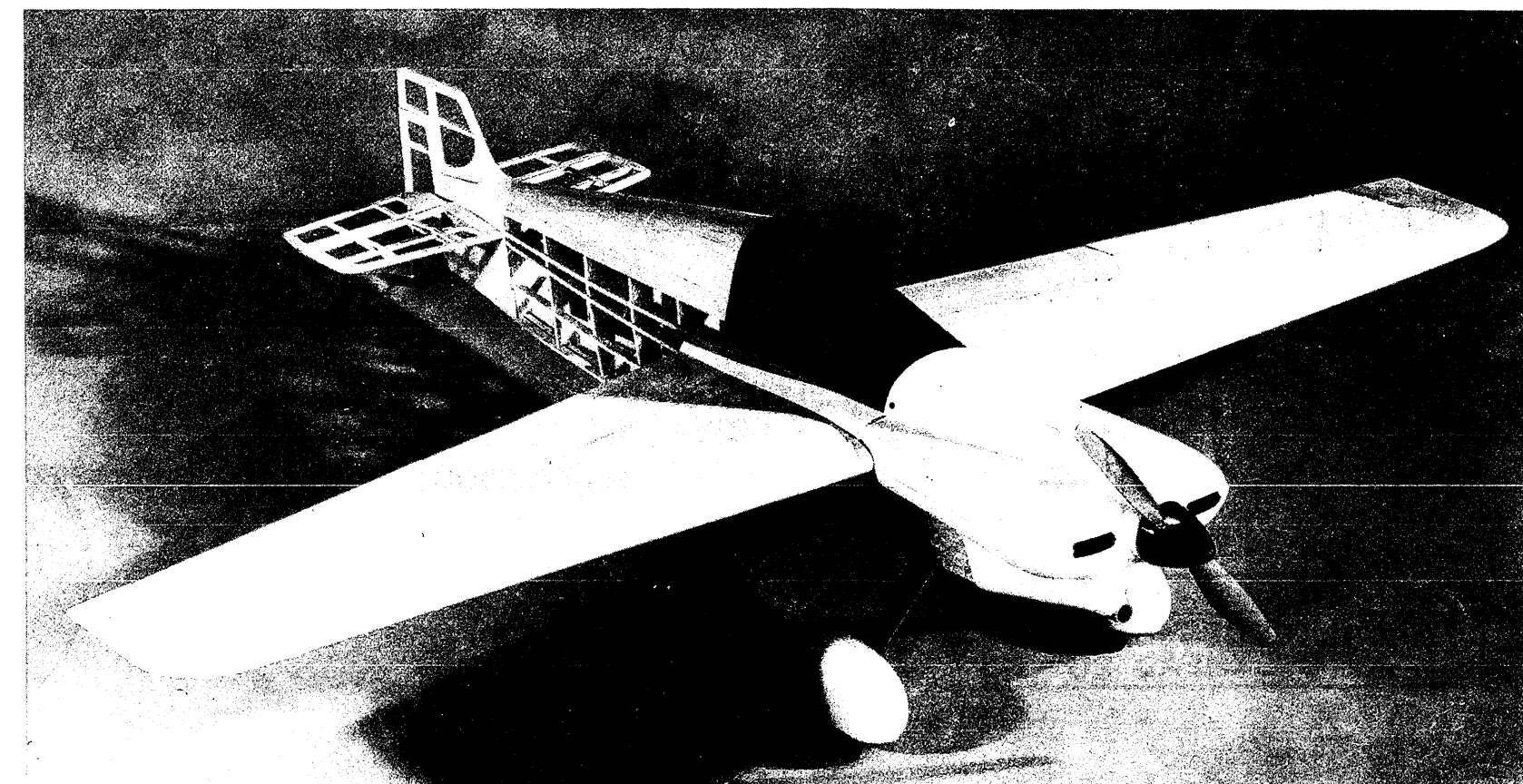
LINKAGE DETAIL



PUSHROD LINKAGE

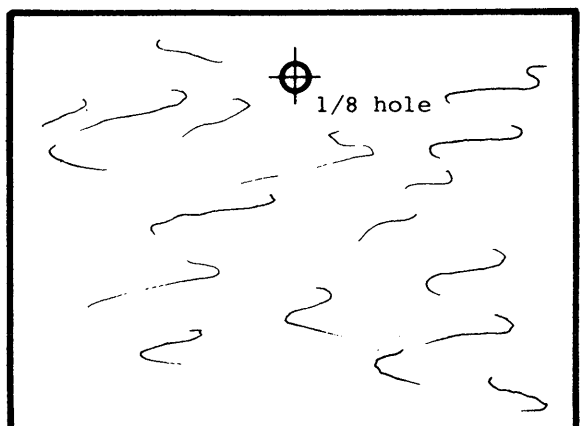
RUDDER ASSEMBLY

Assemble Rudder by pinning parts #27 to #30 to Plan, cementing them together where they join. Cut two pieces of 1/8 sq. to length and cement in place. Allow Rudder to dry thoroughly then sand smooth and check fit with Fuselage. Cover with covering material of your choice. (not supplied).



CONTROL LINE INSTALLATION

Control Line System parts are not included in kit. Before Wing Ribs are cemented in place in Left Hand Wing Panel, holes for Leadouts must be drilled at location shown on Full Size Wing Drawing. Install controls after Fuselage has been completed. Cut Bellcrank Platform from 3/16" Plywood (not supplied) using Full Size Pattern. Drill hole and mount Bellcrank according to manufacturers instructions, then cement securely into Fuselage in position shown in sketch. NOTE: Wing Spar and Bulkhead #14 must be notched to Clear Bellcrank. Center of Bellcrank is aligned with Balance Point. Leadout Lines come through Wing Rib holes. Connect Elevator to Bellcrank with Nylon Tubing Pushrod as shown making sure Elevator is neutral when Bellcrank is also centered and neutral. Cement Rudder to Pin and Rear of Fuselage, angled 1/2" to outside of circle flown as shown. Lead-out Lines must be of equal length when Elevator is in neutral position. Control system must operate Freely and Easily. CHUTWON Model must balance slightly nose heavy on FRONT Lead-out Line.



BELLCRANK PLATFORM

Cut From 3/16 Plywood (not Supplied)

CLEVIS DETAIL

Break off pin and insert thru holes. Push until locking rings snap in place. Screw Clevis on threaded shaft.

