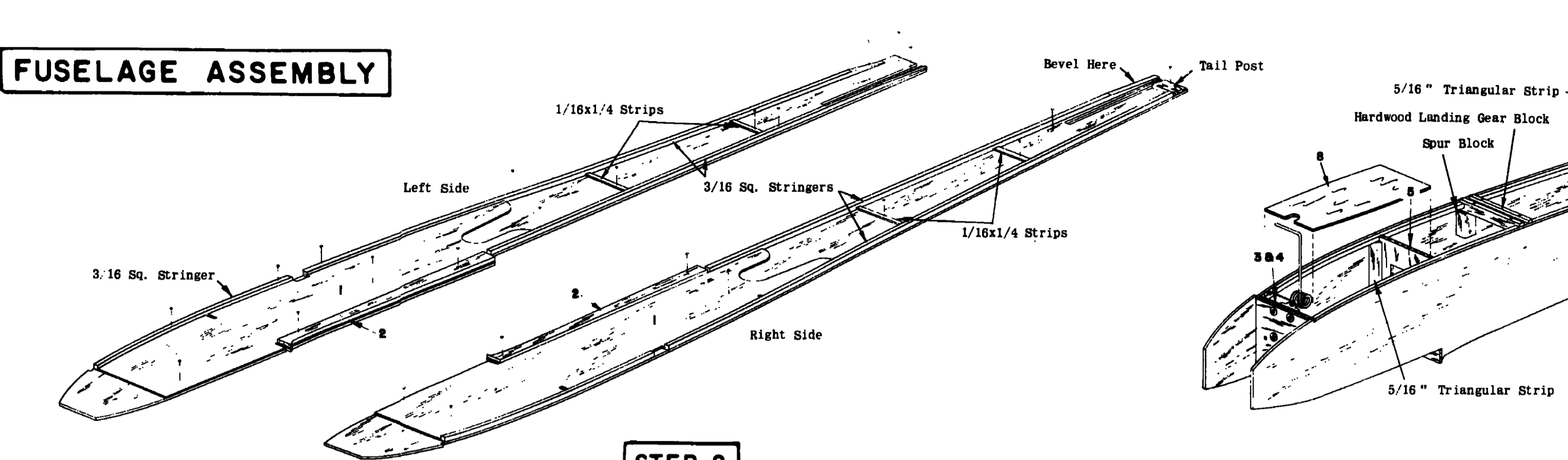


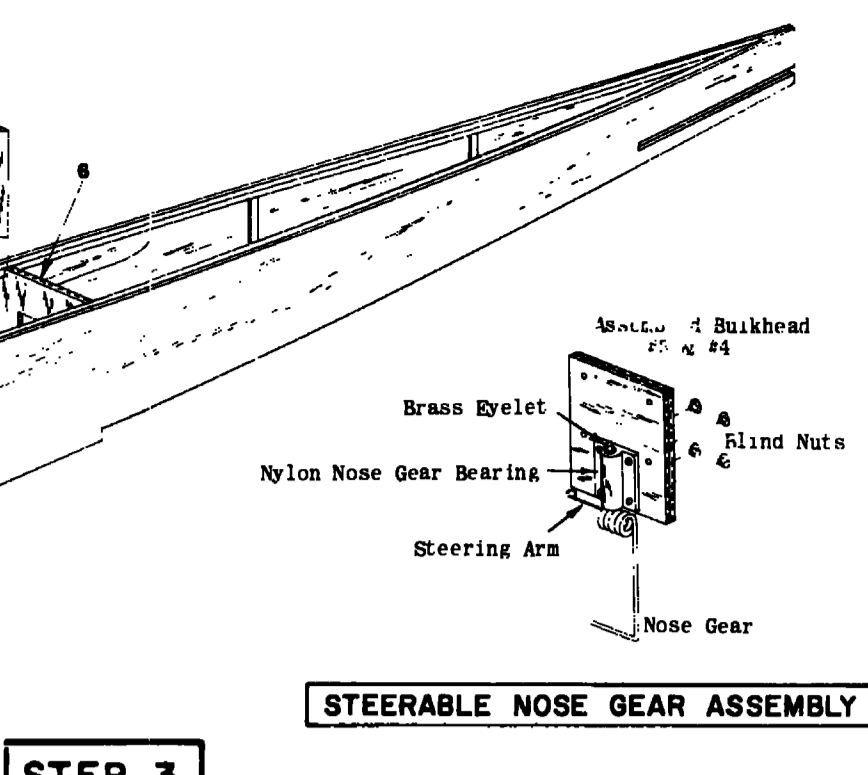
STEP 1

To prevent parts from sticking to Plan, spread Saran Wrap or a similar kitchen film over Plan. For rapid assembly first complete the sub-assemblies shown as follows: Cement Plywood Bulkheads #3 & #4 together as shown, and then drill out 1/8" holes at the right punch marks on #3. Cement Pin sections #8 & #10 together. Assemble the multi-layer left hand rib assembly #27, illustration shows left hand rib assembly. Assemble right hand assembly in same manner placing #29 on other side of #28. Cement Assembly Wing Tip by cementing #22 flush with outer edge of #21. Cement #23 to front of #22 as shown. Make two, right and left. Illustration shows right hand Tip. Cement #24 & #25 together to form double layer.



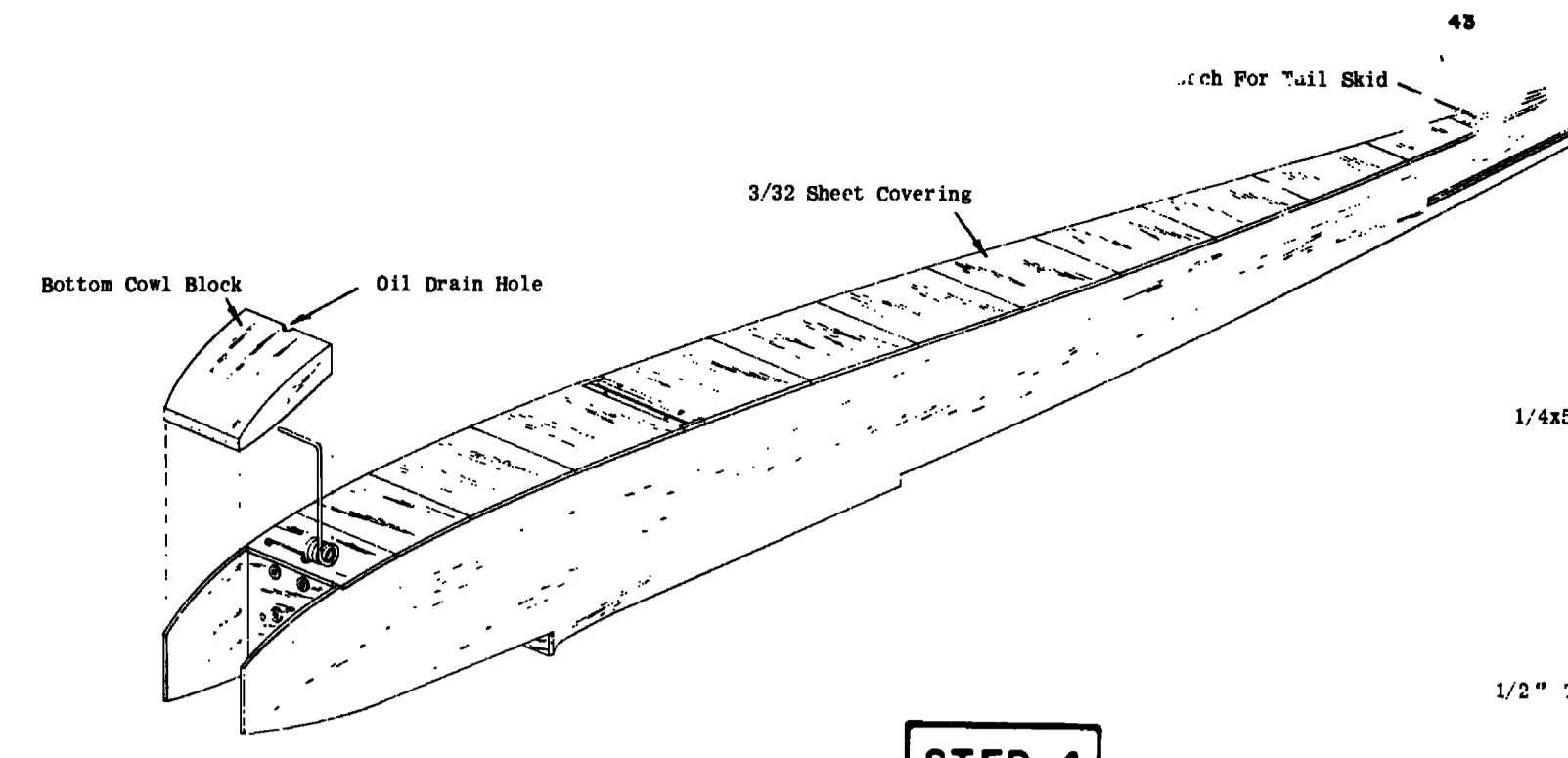
STEP 2

Sketches show how to be sure you make a right hand and a left hand Fuselage side. Cement Plywood Doubler #1 to Fuselage sides, lining up with Bulkhead notches as shown and flush with top. Cement #2 flush with top of #1, between notches as shown. Cement Tailpost on one side flush with rear and bottom, then pin and cement 3/16" Sq. Curser Stringers in place as shown. Cut 4 strip stiffeners to proper length, (see side view) using 1/1641/4 material provided, and cement in place. Be certain you have made a left and a right hand side.



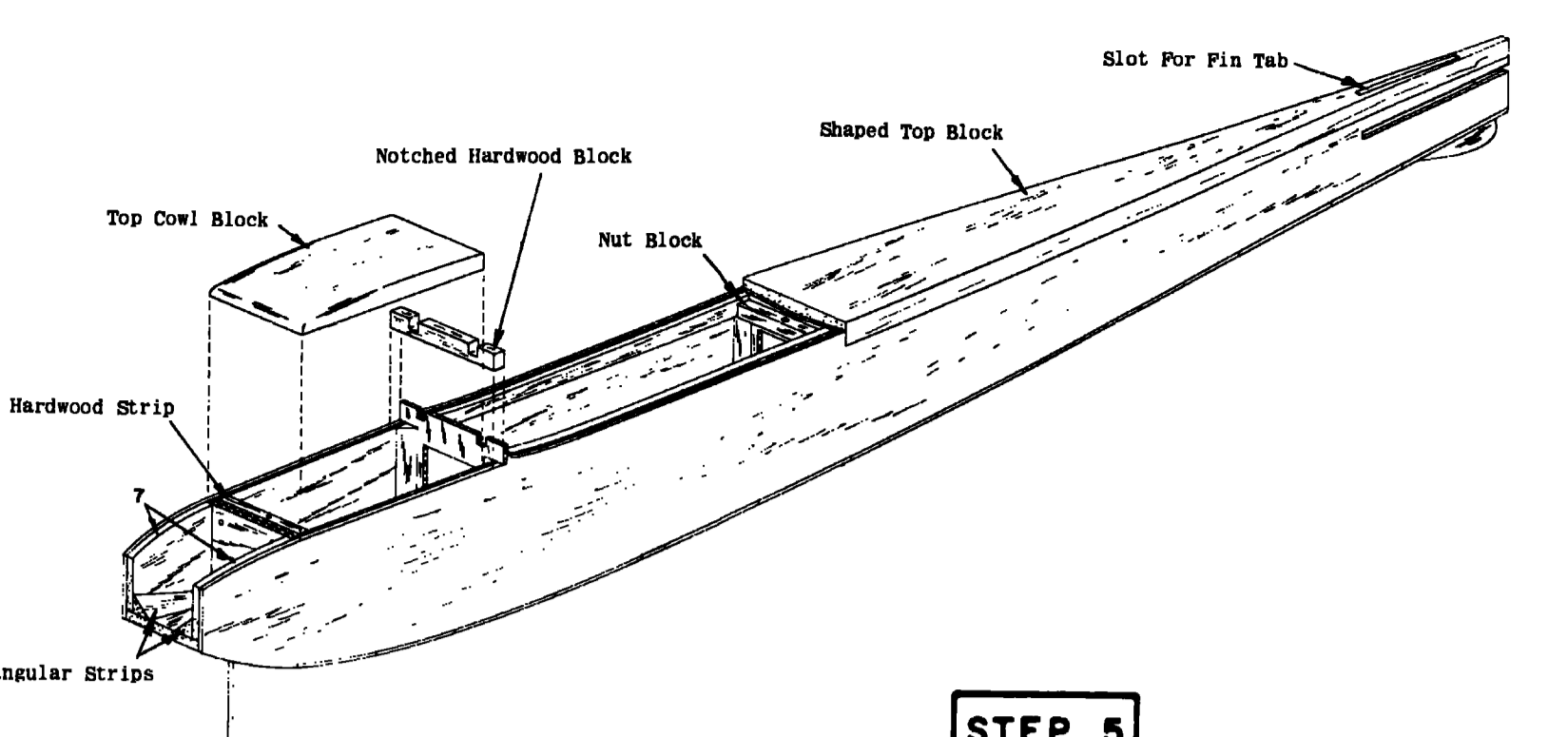
STEP 3

Modeler must now decide whether he wishes to construct his Fuselage as a tri-cycle, (in which case the Nose Gear is installed) or a Tail Dragger, (in which case the Nose Gear is omitted). To assemble Nose Gear, solder Steering Arm in place, locating it at top of Cowl as in line with axle, when viewed from top. Slip Nylon Nose Gear bearing in place, then solder brass Eyelet in place, (flange down leaving just enough clearance for free movement). Mount Nut with Nylon and Blind Mounting Nut as shown. Blind Nuts are located by inserting screw through Bulkhead hole then running Nut up until prongs engage and slide into Bulkhead so that Screw can be inserted, then remove Screw. Nut is now permanently secured to Bulkhead so that Screw can be inserted and removed without nut turning. Fuselage sides are now assembled, lining up holes in Block with slots. Cement Plywood Floor #6 between Bulkheads #3 & #4, flush with Bulkheads and Stringers.



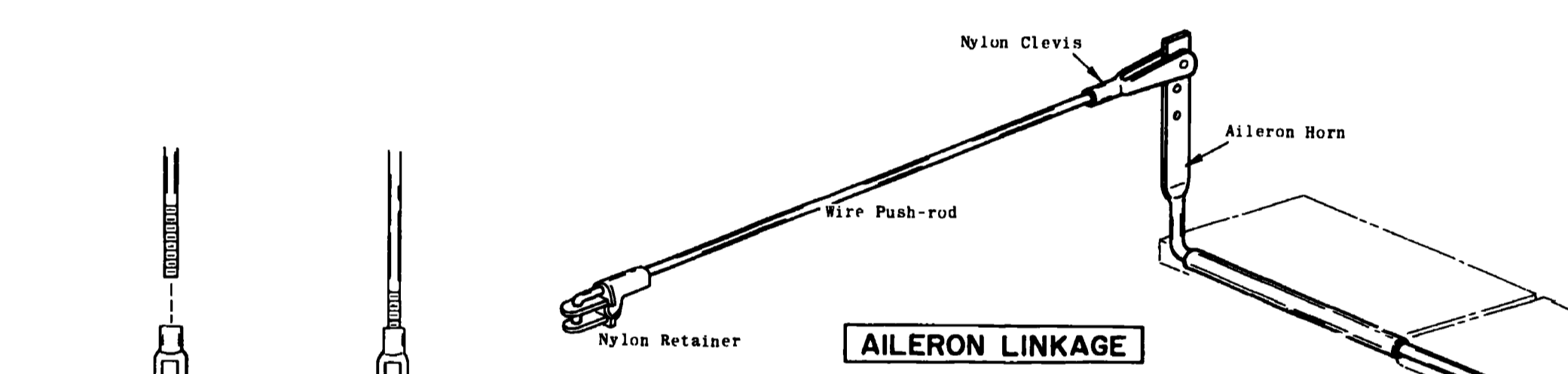
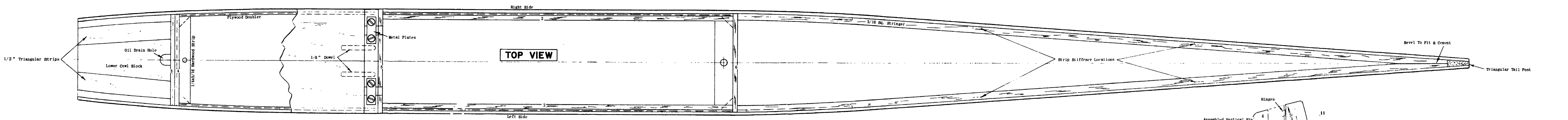
STEP 4

Cut Oil Drain Hole in bottom Cowl block and cement in place as shown flush with sides, then cement remainder of Fuselage with 3/3238 sheet covering, grain running across Fuselage. Notch out where necessary. Note that Landing Gear Block is flush with sheet covering and top surface remains exposed as shown. Notch out rear Skin Covering for Tail Sid and securely cement it into place in notch as shown on sketch and side view.



STEP 5

Cement front Balsa Duplicators #7's in place on each side against bottom block and Bulkhead #3. Cement 1/2" triangular strip into each bottom corner as shown. Cement Fuselage top block in place. When dry place rear of Pin at rear of Fuselage and mark tab location (on bottom of Pin) on Fuselage top block. Drill 1/16" hole in center of back mark (in center of Fuselage) then complete Pin slot by trimming out 3/16" wide section between holes. Check to see that Pin fits into slot. Nut block (backwood block with rounded hole in it) is cemented against Bulkhead #6, and location of triangular Bulkhead as shown. Use at least three heavy coats of cement on this installation front to insure maximum strength and do likewise with notched hardwood block which goes against front of #5 and also 1/641/8 hardwood strip which goes across Fuselage against rear of Bulkhead #4 flush with top. Drill 1/16" hole in center of strip as shown, then install blind Nut on bottom. Front Cowl Block is temporarily tacked glued in place as shown against front of notched block. When blocks are dry, they are trimmed and sanded to shape of Bulkheads, front rounded off as shown in Final Assembly sketch and side view.

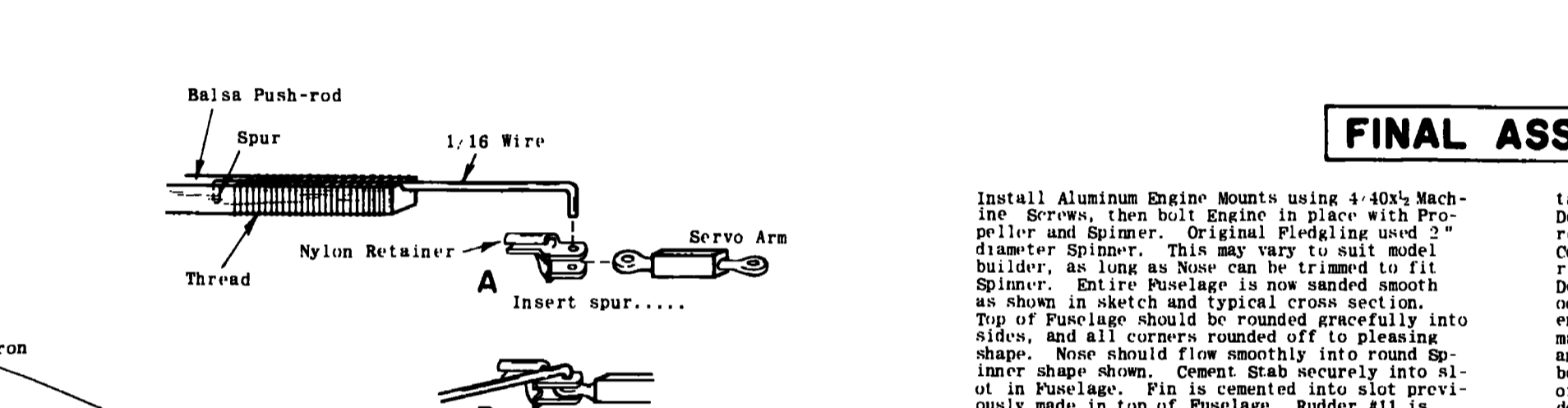


CLEVIS DETAIL

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

LINKAGE DETAIL

Sketches show the various typical linkage connections using the special Nylon and Steel B/C fittings provided in kit. Nose gear sketch shows how Push-rod is held covered with plastic tubing and cemented in steering arm. Aileron linkage sketch shows how Push-rod retainer is engaged in servo arm. Opposite end shows clevis engaged in Aileron horn. Push-rod sketch shows how 90 degree horns are made in 1/16 wire on both ends. One end is pushed into 1/4 Sq. Balsa push-rod, where it is bound and cemented. The other end is inserted in Push-rod Retainer as shown in Steps A-B-C, causing servo arm, opposite end of Push-rod uses threaded rod provided, which is cut to proper length, unthreaded end bent and bound to balsa rod, and clevis screwed on to threaded end which is then ready to be engaged in control horn.

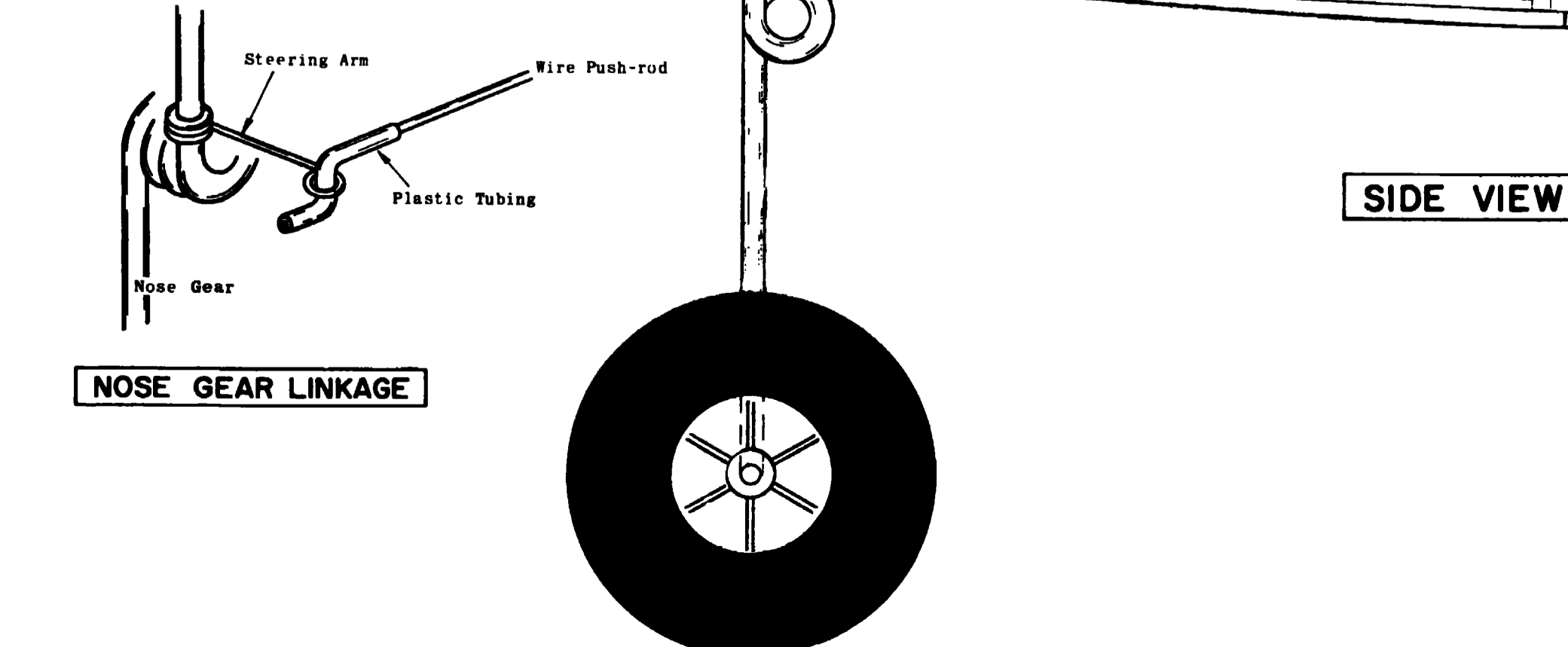
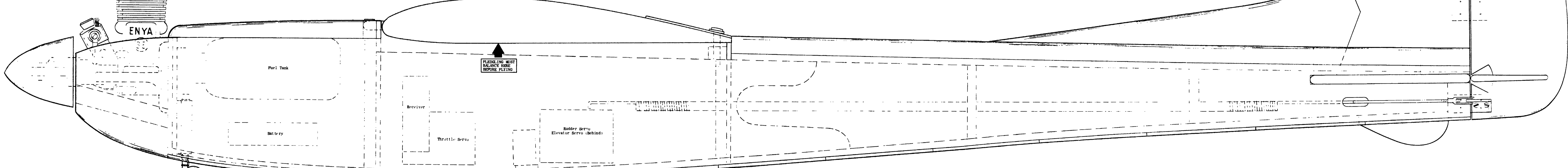
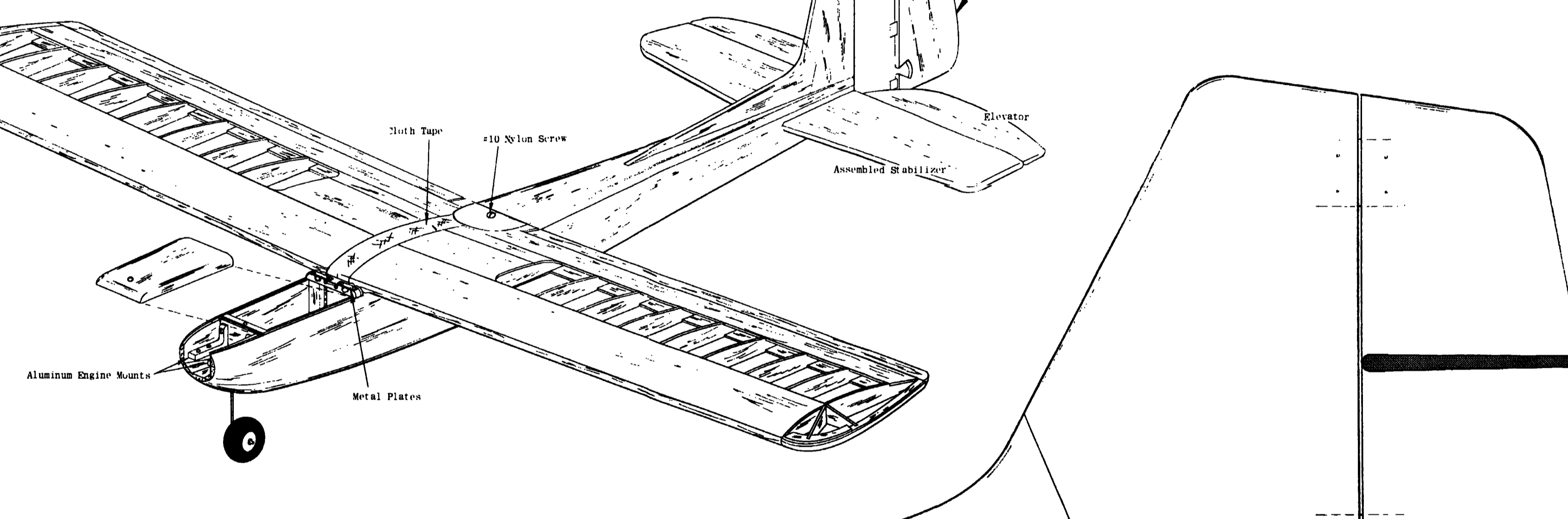


PUSHROD LINKAGE

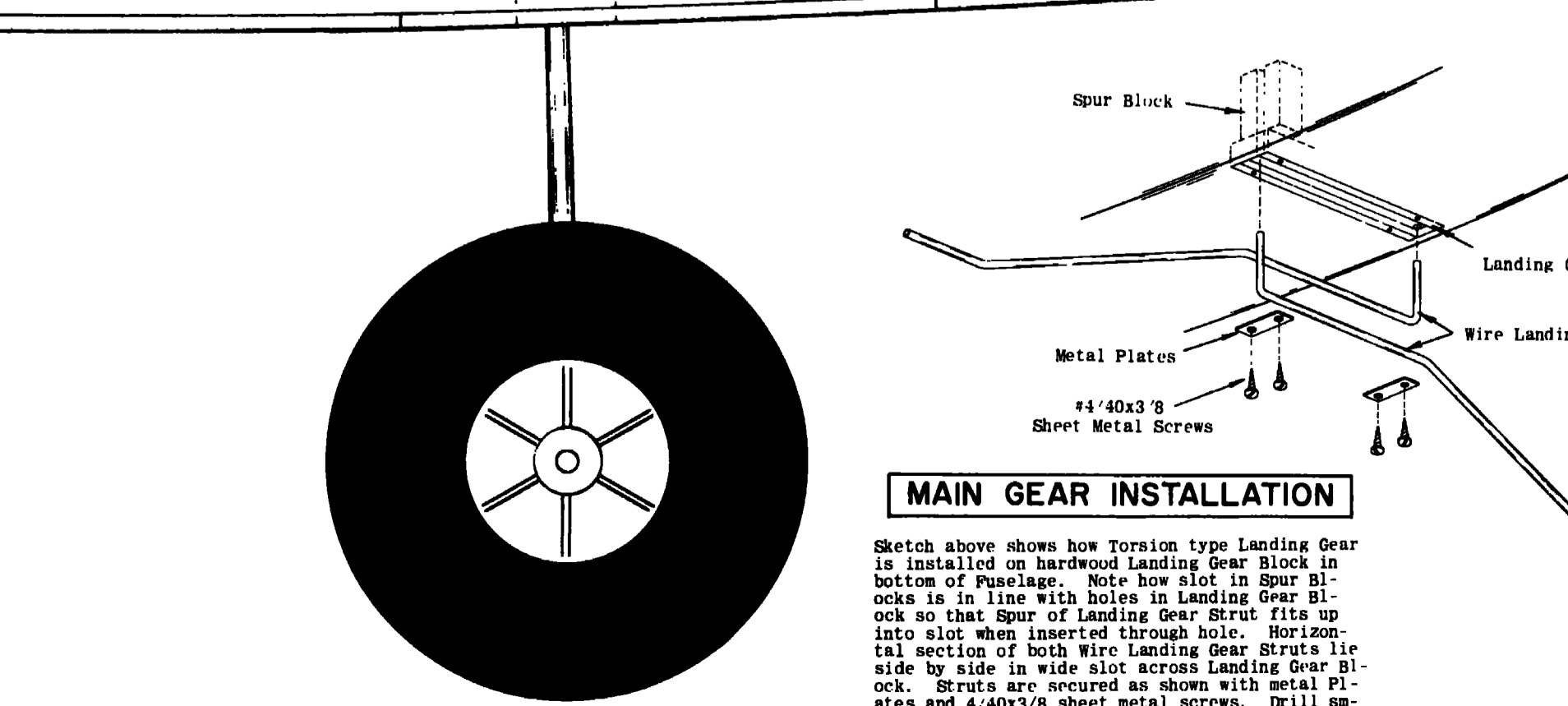
Insert Aluminum Engine Mounts using 4-40x1/2 Machine Screws, then bolt head in place with Propeller and Spinner. Original Plywood used 2" diameter Spinner. This may vary to suit model builder, as long as Nose can be trimmed to fit Spinner. Entire Fuselage is now sanded smooth as shown in sketch and typical cross section. Top of Fuselage should be rounded gracefully into Aileron, and all corners rounded off to pleasing shape. Nose should flow smoothly into round upper shape shown. Cement Stub securely into slot in Bulkhead. Lip is cemented into slot previously made in top of Fuselage. Rudder #11 is cemented to tapered section shown on side view, then cemented to Pin and Fuselage with Poly Nippon (see detail) to line hole in rear of Wing for servo mounting hole. Run Nylon Screw into Nut block. Place wire in position. Double routing is notched block. Place carbon fiber between Wing and Nylon Bolt and press firmly, thus leaving an impression. Remove Wing and drill a slightly oversized 1/8" hole at mark so Screw passes through freely. Remove Screw, then cement Wing to check hole location. Front of Wing is secured by installing metal plates across notch in hardwood block over each Wing down as shown in sketch and full size top view. Use #4x3/8 Tap Screw, drill small holes for Tap Screws to prevent wood from splitting. Be certain Screws are tightened down securely. This method of securing Wing to Fuselage is excellent, since Wing cannot shift as does happen if rubber bands are used. Under hand impact of notched block. It is advisable to keep a few #10 Nylon Screws in your tool box for components. Remove Wing, then drill two 1/8" holes through notched hardwood block, into rear of front cowling. Location of holes can be seen on full size top view. Front Cowl Block, which was temporarily

FINAL ASSEMBLY

tacked glued in place, is now removed and 1/8" Dowel is cemented into hole drilled in rear. Locate and drill 1/8" hole in front of Cowl as shown, directly over hole in hardwood at rib. Cowl is now installed by inserting 1/8" Dowel into hole drilled for them in notched block. Front is secured with 4-40x1/2 Machine Screws, retained in Blind Nut. Model is now covered with material of your choice (not included in kit), and painted to suit individual taste. Full color box wrap shows original color scheme and location of details. Install Landing gear as described in detail note. Wheels and radio equipment (not included in kit) are now installed in accordance with manufacturer's instructions. Typical position of radio equipment is shown on Plan, as is the Control Linkage. Linkage (see detail) uses 1/4 Sq. Balsa strips provided for Pushrods; with 1/16" Wire Spars cemented to front, and the rounded clevis shaft for rear on that Wire Link. The main linkage and required side view location and installation of 8 oz. Nylon horn and Pin. An similar tank that fits may be used. Battery pack is located under Fuel Tank as shown. Full size equipment is shown with kit. IT IS IMPERATIVE THAT MODEL BALANCES AT POINT SHOWN ON SIDE VIEW. Radio components may be shifted forward or aft to achieve balance at that point. IF NECESSARY, ADD WEIGHT TO FRONT OR BACK. SINCE MODEL MUST NOT BE FLOWN UNTIL THIS BALANCE IS ACHIEVED! Main Wheels are 3" and Nose Wheel (if used) is 2 1/2". Sizes are optional, however relative sizes should be maintained. As written your comments on the Flightline kit, as well as its flight performance. Address correspondence to Sterling Models, Inc., Bedford Ave. & Winter St. Bldg., Ph. 1914 U.S. Attention: Engineering Department. GOOD LUCK, MUCH FUN AND HAPPY LANDING!!!!

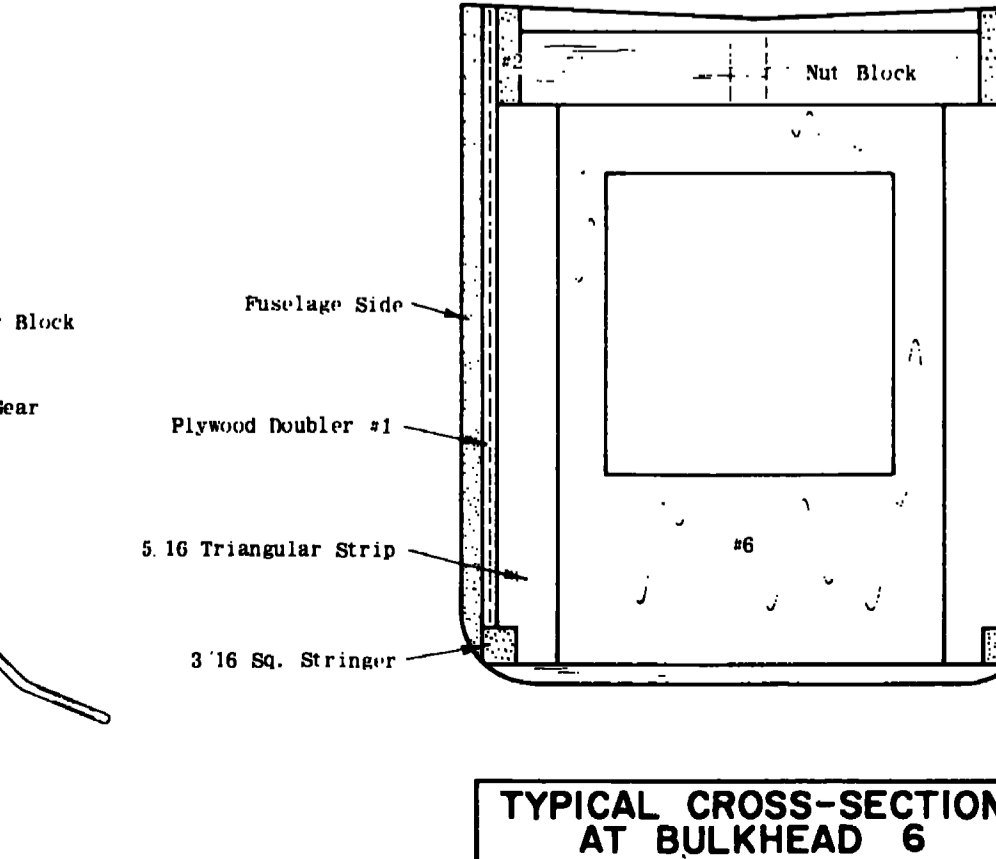


NOSE GEAR LINKAGE



MAIN GEAR INSTALLATION

Sketch above shows how torsion type Landing Gear is installed on hardwood Landing Gear Block in bottom of Fuselage. Note how slot in Landing Gear Block is in line with holes in Landing Gear Block so that Landing Gear Strut fits snugly in side by side in wide slot across Landing Gear Block. Screws are secured as shown on sketch and use 4-40x3/8 sheet metal screws. Drill small holes for screws to prevent splitting block.



TYPICAL CROSS-SECTION AT BULKHEAD 6



FLEDGLING

SPAN 56 in. AREA 545 sq. in. LENGTH 42 in. FOR ENGINES .23 to .40

KIT FS-29

Sterling
MODELS
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PHILA., PA. 19144, USA

For The Sport Flier And Especially The Newcomer To Radio Control Flying

