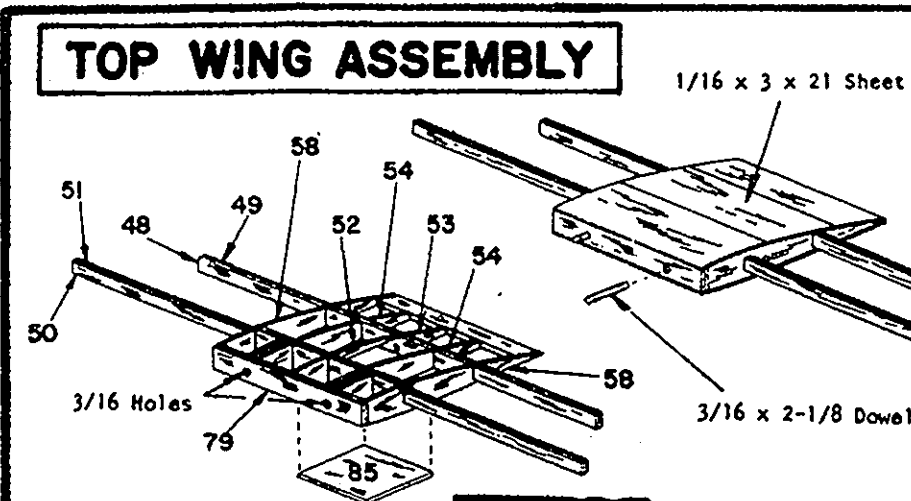
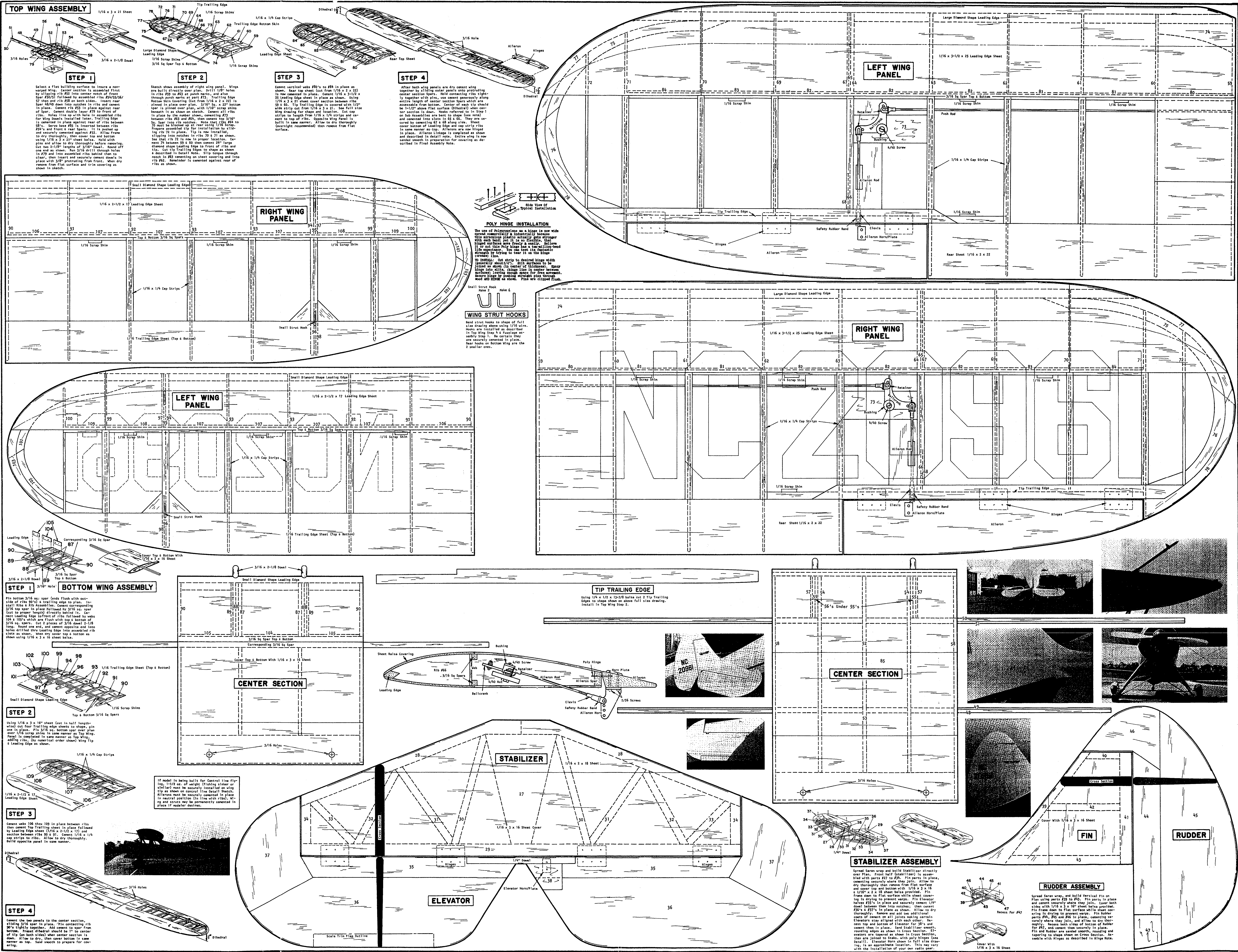
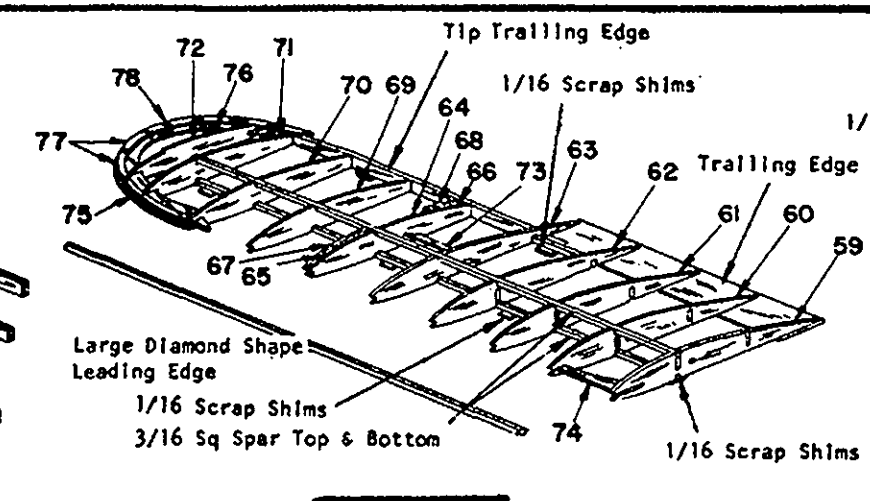




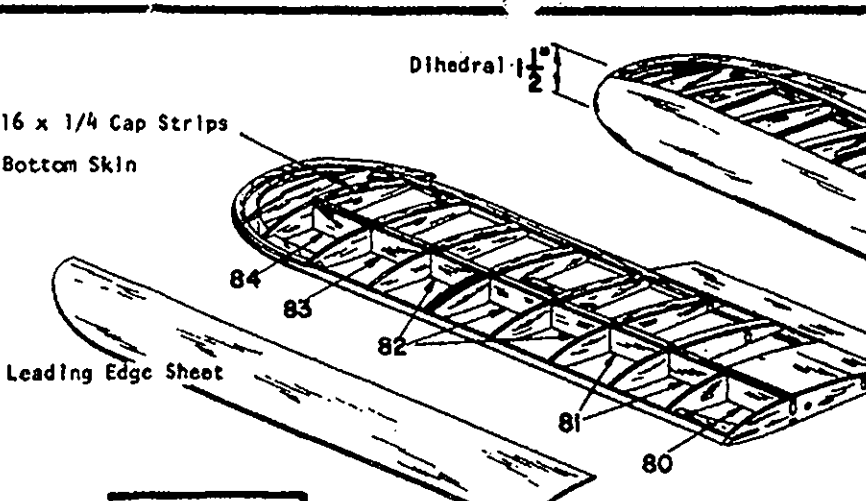
STEP 1

Select a flat building surface to insure a non-warped wing. Center section is assembled first by slipping rib #52 into center notch of front spar #50/51 followed by assembled ribs #49/54/55/57 then ribs #58 on both sides. Insert rear spar #48/49 down into notches in ribs and cement in place. Cement ribs #53 in place against rear of spar. Cement double layer #73 to front of ribs. Notes line up with hole in assembled ribs for wing dowels installed later. Trailing Edge is cemented in place against rear of ribs between ribs. Spar base #52 is inserted between ribs #55's and front & rear spars. It is pinned up and securely cemented against #52. Allow frame to dry thoroughly, then cover top and bottom using 1/16 x 3 x 21" sheet balsa. Hold with pins and allow to dry thoroughly before removing. Cut up 1/16" lengths of 3/16" Dowel, found off one as shown. Run 3/16 drill through holes in #73 and into assembled ribs behind them to clear, then insert and securely cement dowels in place with 3/60" screwdriver from front. When dry remove from flat surface and trim covering as shown in sketch.



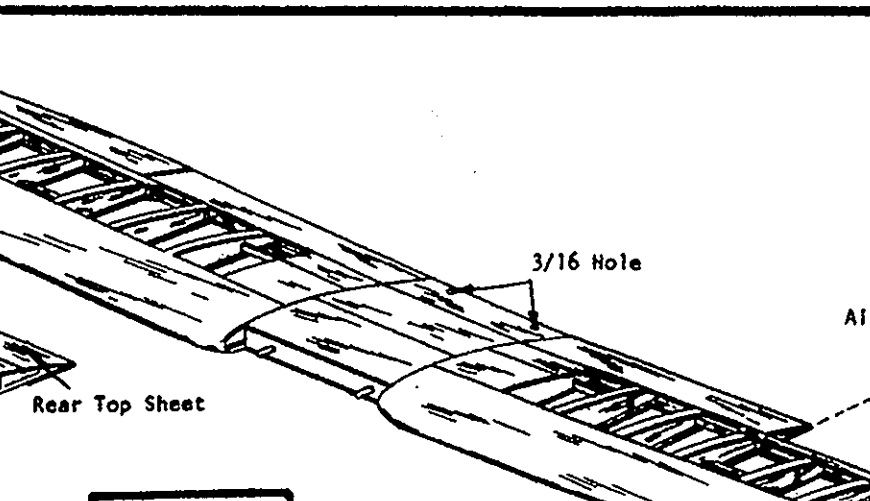
STEP 2

Sketch shows assembly of right wing panel. Wings are built directly over plan. Drill 1/8" holes in ribs #59 to #63 at punch marks, and also through punch marks at parts #73. Trailing Edge Bottom Skin Covering (cut from 1/16 x 2 x 32) is pinned in place over plan. 3/16" sq. x 20" bottom spar is pinned over plan, with 1/16" scrap shims beneath it as shown on plan. Cement all ribs in place by the number shown, cementing #73 to spar into ribs notches. Note that ribs #64 to 70 must be blocked up at rear using 1/16" Scrap. Prepare assembled rib for installation by sliding rib #72 in place. Tip is now installed, slipping into notches in ribs 70 & 71 as shown. See chart rib 72 is now in proper location. Cement 74 between 59 & 60 then cement 24" large diamond shape leading edge to front of ribs and tip. Cut 1/16" Trailing Edge to shape as shown & described in detail note. Strip scum through notch in #60 cementing on sheet covering and into rib #62. Remainder is cemented against rear of ribs as shown.



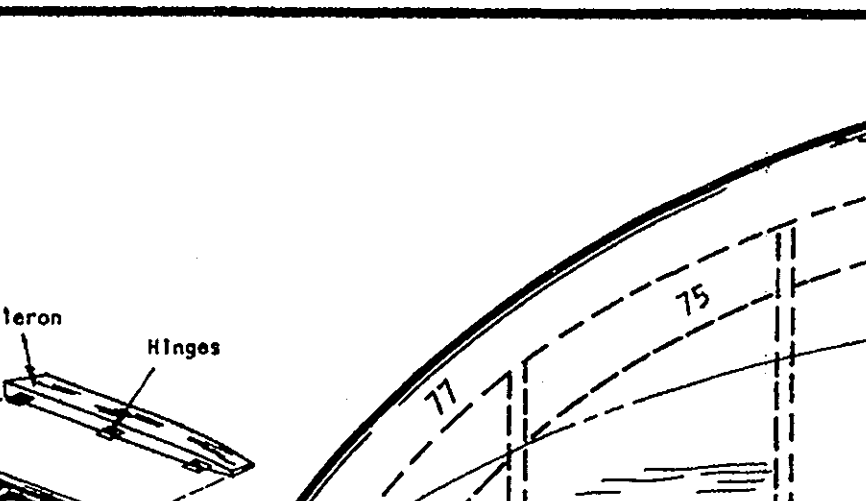
STEP 3

Cement vertical webs #60's to #64 in place as shown. Rear top sheet (cut from 1/16 x 2 x 22) is now cemented in place. Cement 1/16 x 3-1/2 x 25 leading edge sheet in place as shown. Slip 1/16 x 3 x 21 sheet cover section between ribs 59 & 60. Tip Trailing Edge is covered with 1/16" wide strip cut from 1/16 x 3 x 21. See full size wing drawing for shape and location. Cut cap strips to top of ribs. Opposite Wing Panel is built in same manner. Allow to dry thoroughly (overnight recommended) then remove from flat surface.



STEP 4

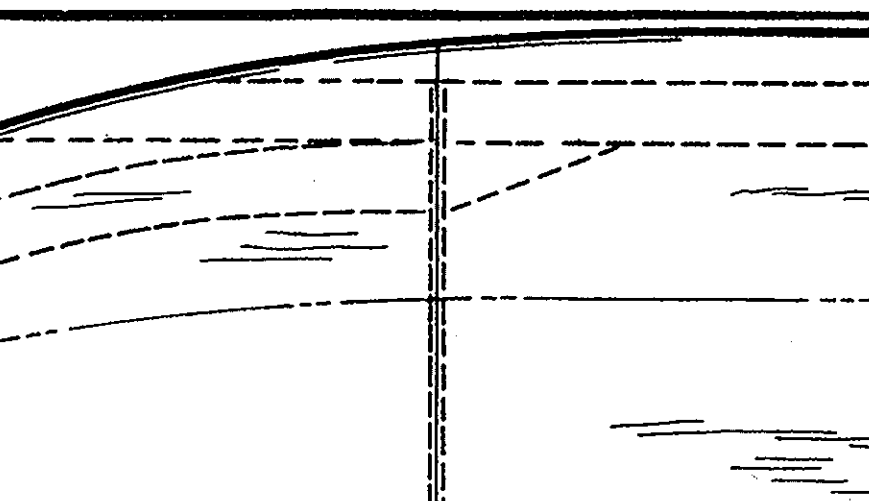
After both wing panels are dry cement wing together by sliding outer panels onto protruding center section spars. Hold contacting ribs tightly together with pins, use cement generously along entire length of center section spars which are accessible from bottom. Center of each tip should be 1/2" above flat surface (dihedral) when center section is down. Holes referred to in step on sub assemblies are bent to shape (see note) and cemented into slots in 65 & 66. They are secured by cementing #7 & 68 along side. Sheet cover bottom of leading edge and dry strip ribs in same manner as tops. Ailerons are now pinned in place. Aileron linkage is completed as shown and described in detail note. Entire wing is now sand smooth in preparation for covering as described in Final Assembly Note.



POLY HINGE INSTALLATION

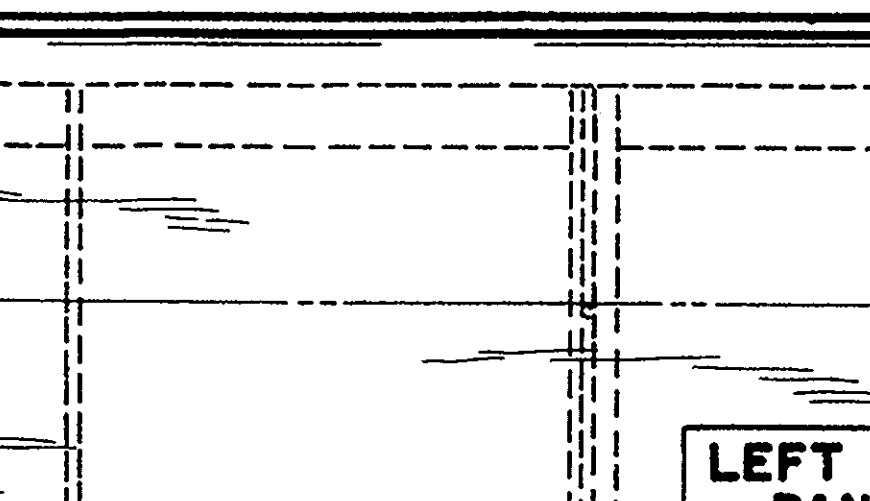
The use of Polypropylene as a hinge is now wide spread commercially & is actually getting stronger each year. It is so flexible that hinged surfaces move freely & easily. Before use it or cut this Poly hinge has a non-stretching strength by tearing to tear it on the sharp (creased) line.

TO INSTALL: Cut strip to desired blade width (generally about 1/2"). Make surfaces to be joined as smooth (in center of thickness). Rough edges with knife, (leave line in center of surfaces) leaving enough space for free movement. Secure hinge by rubbing wetglue glue through wood AND HINGE as shown. Pins are clipped flush.

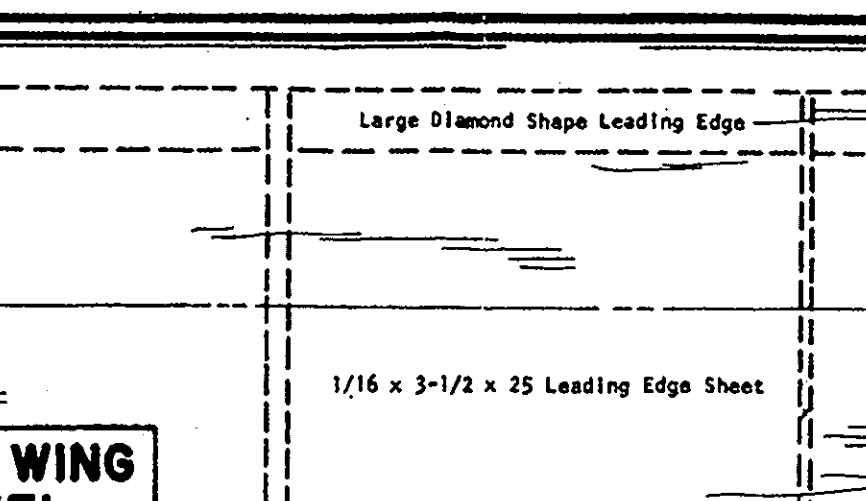


WING STRUT HOOKS

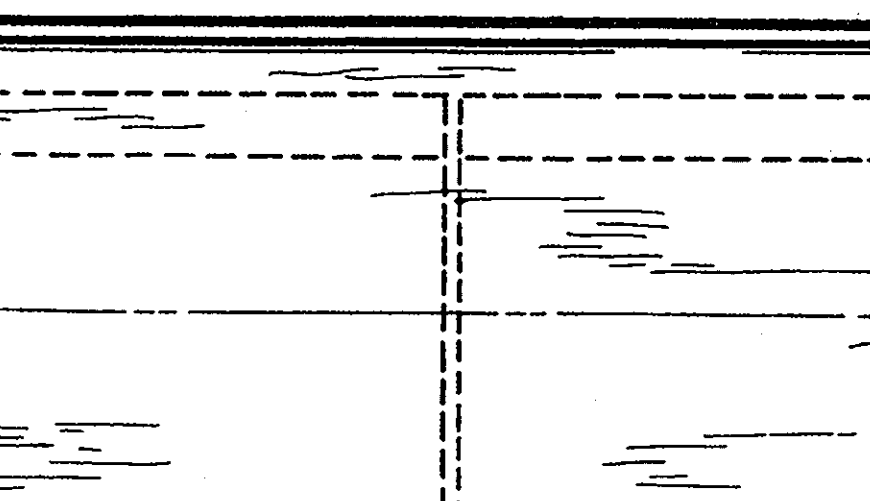
Bend strut hooks to shape of full size drawing above using 1/16 wire. Hooks are installed as described in Top Wing Step 4 & Paneltop assembly Step 1. Be certain they are securely cemented in place. Rear hooks on Bottom Wing are the 2 smaller ones.



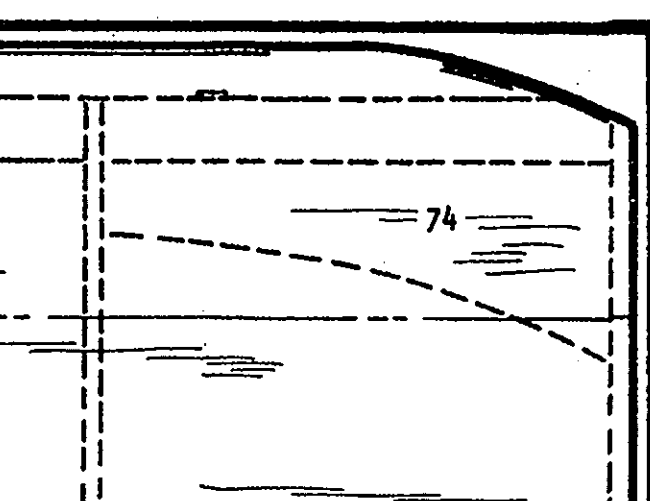
LEFT WING PANEL



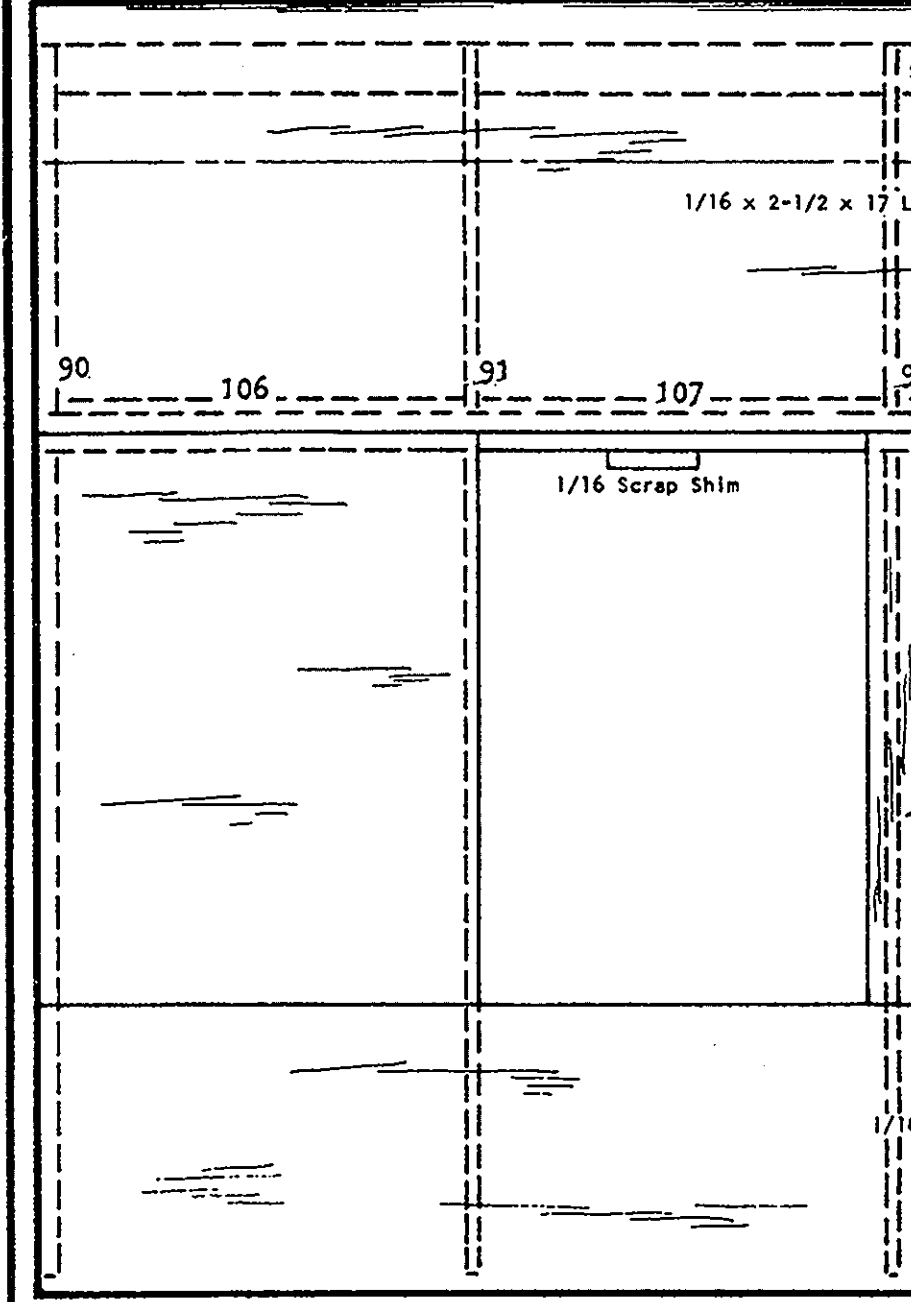
RIGHT WING PANEL



RIGHT WING PANEL

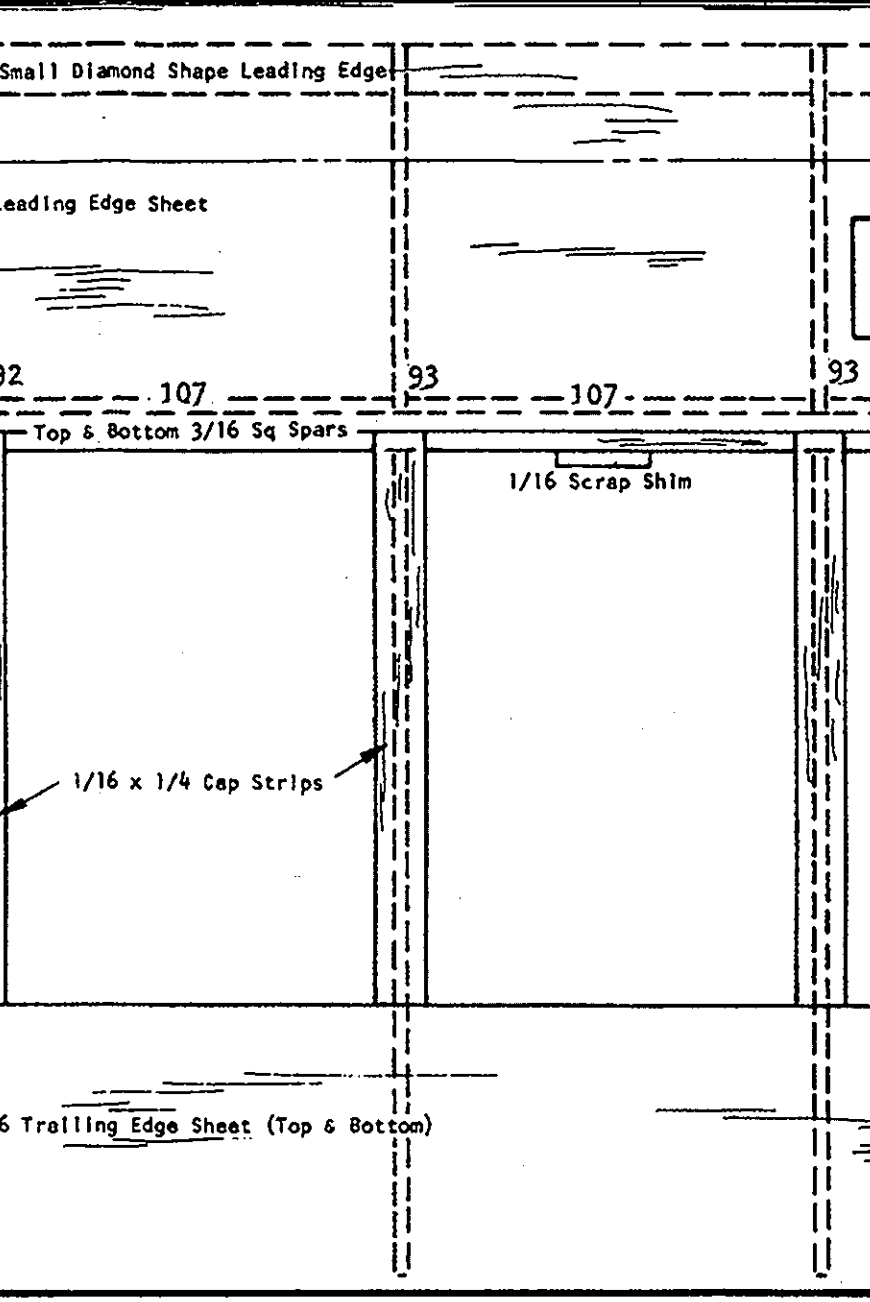


RIGHT WING PANEL



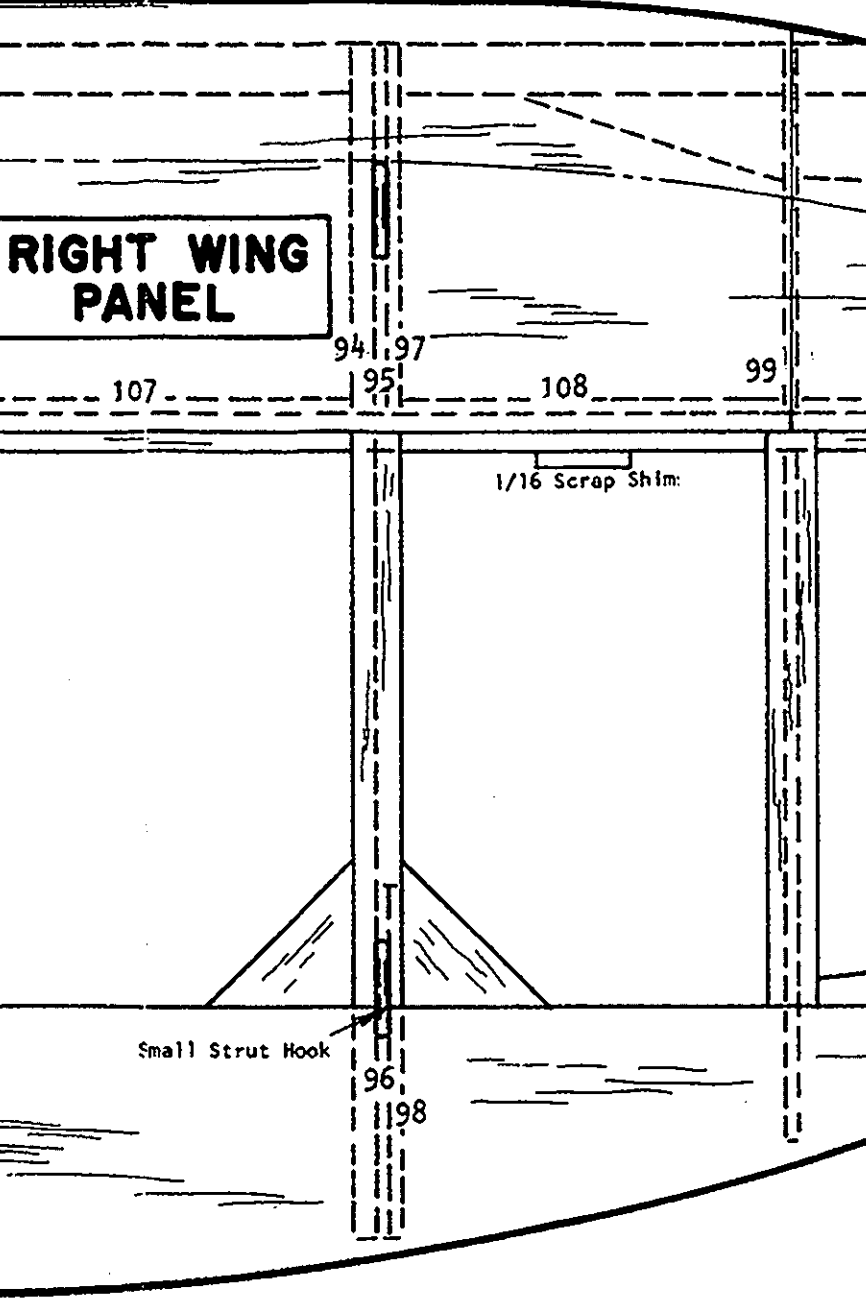
STEP 1

Pin bottom 3/16 sq. spar leads flush with outside of ribs #50's & trailing edge to plan. Insert 3/16 top spar in place followed by 3/16 sq. spar. Cement 3/16 sq. spar into notches in ribs and cement in place. Cement ribs #53 in place against rear of spar. Cement double layer #73 to front of ribs. Notes line up with hole in assembled ribs for wing dowels installed later. Trailing Edge is cemented in place against rear of ribs between ribs. Spar base #52 is inserted between ribs #55's and front & rear spars. It is pinned up and securely cemented against #52. Allow frame to dry thoroughly, then cover top and bottom using 1/16 x 3 x 21" sheet balsa. Hold with pins and allow to dry thoroughly before removing. Cut up 1/16" lengths of 3/16" Dowel, found off one as shown. Run 3/16 drill through holes in #73 and into assembled ribs behind them to clear, then insert and securely cement dowels in place with 3/60" screwdriver from front. When dry remove from flat surface and trim covering as shown in sketch.



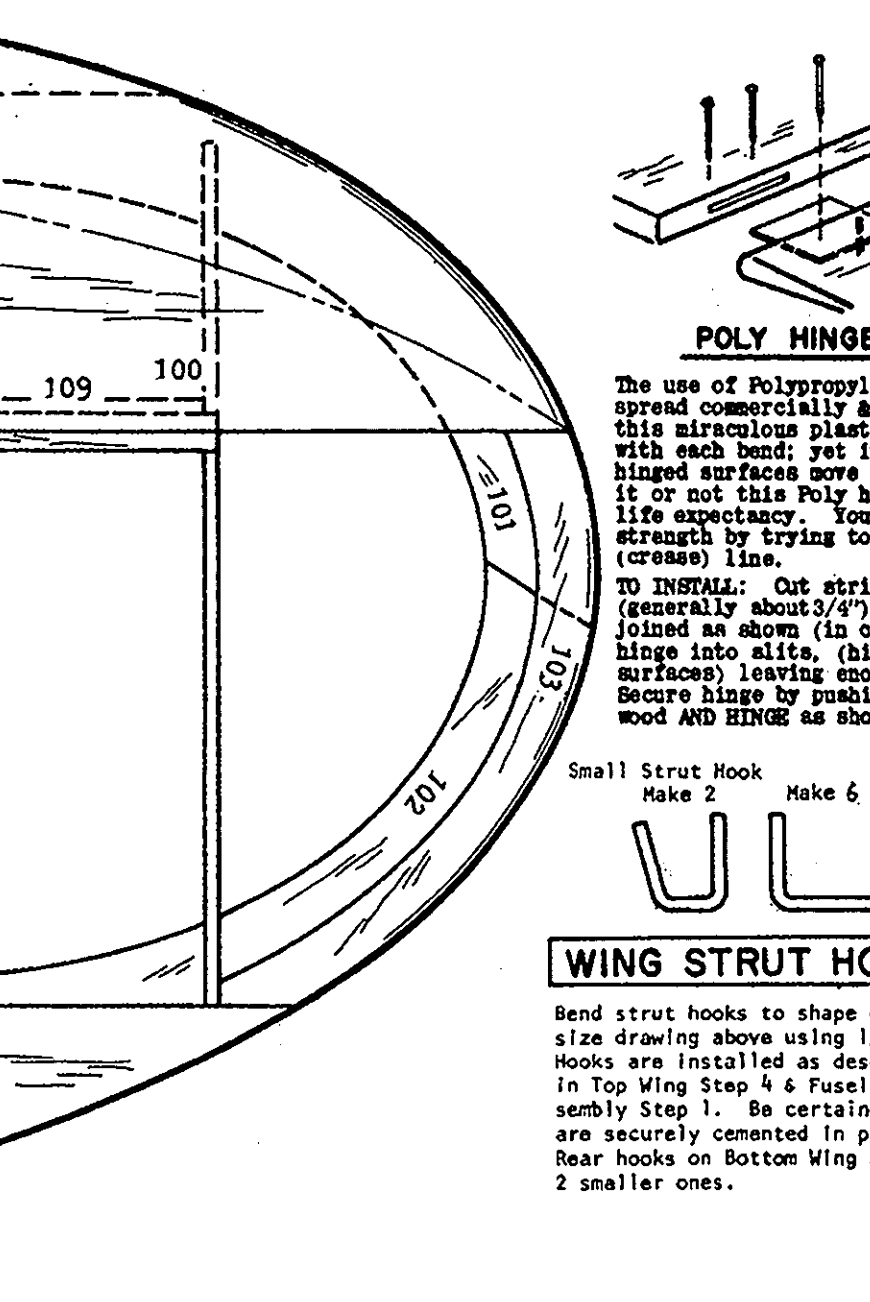
STEP 2

Using 1/16 x 3 x 16" sheet (cut in half lengthwise) cut four Trailing edge sheets to shape pin one in place. Pin 3/16 sq. bottom spar over plan over 1/16 scrap shims in same manner as Top Wing. Panel is completed in same manner as Top Wing. Leading ribs (by numerical order shown) Wing Tip & Leading Edge as shown.



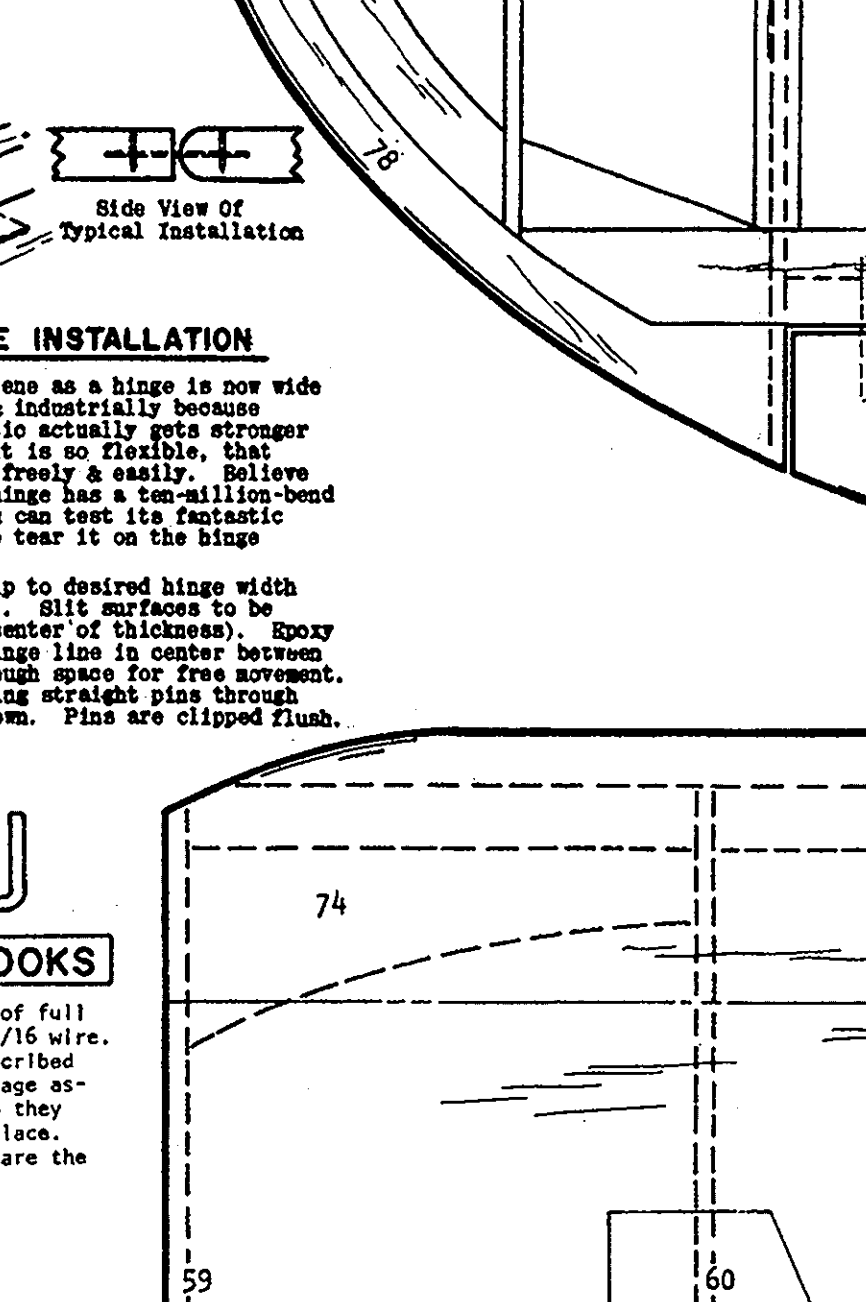
STEP 3

Cement webs 106 thru 109 in place between ribs then cement Top Trailing sheet in place followed by leading edge sheet (1/16 x 2-1/2 x 17) and section between ribs 50 & 51. Cement 1/16 x 1/4 cap strips to ribs. Allow to dry thoroughly. Build opposite panel in same manner.



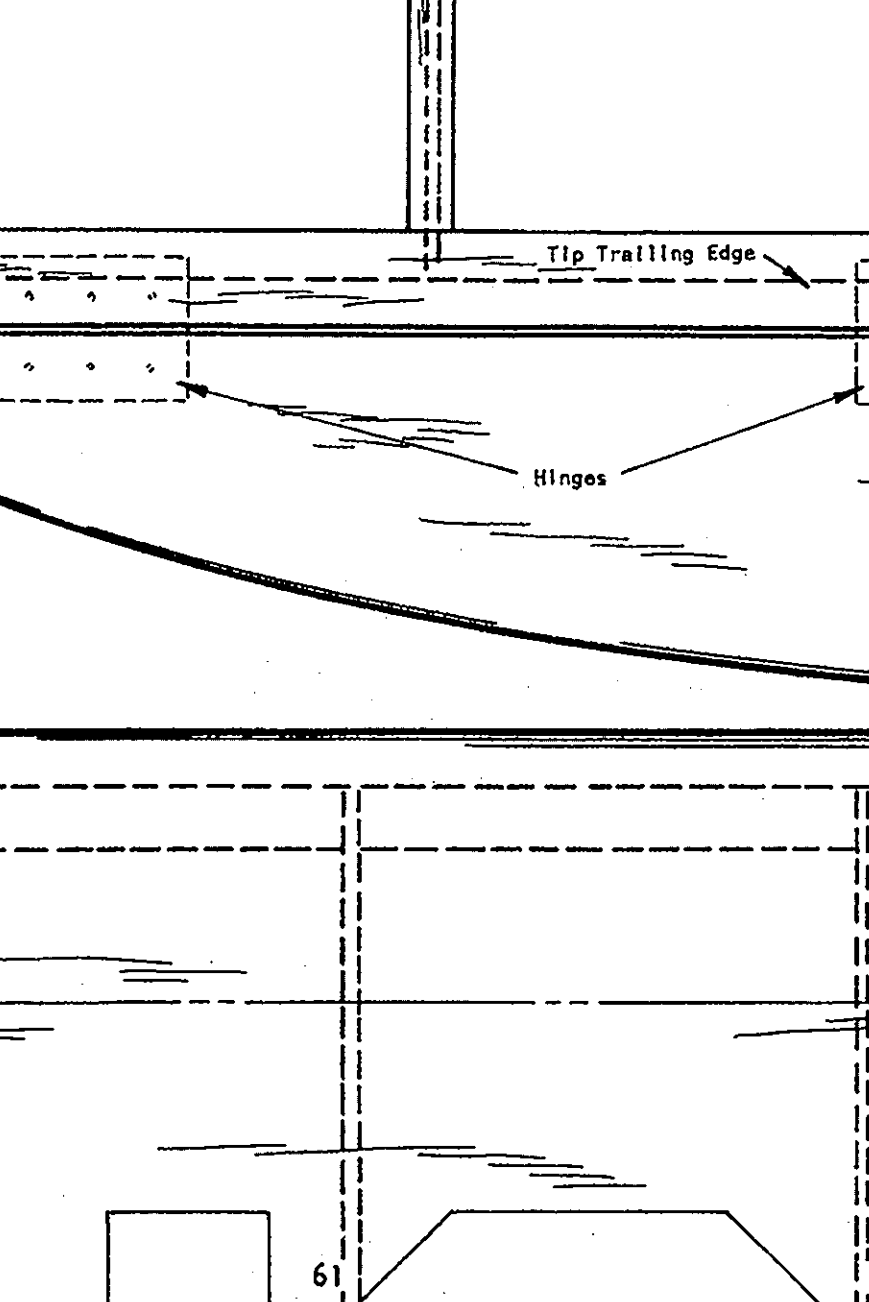
STEP 4

Cement the two panels to the center section, sliding 3/16 spar in place. Pin contacting ribs #50's tightly together. Add cement to spar from bottom. Pre-set dihedral should be 1/4" to center of tip (on both sides) when center section is down. Allow to dry, then cover bottom in same manner as top. Sand smooth to prepare for covering.



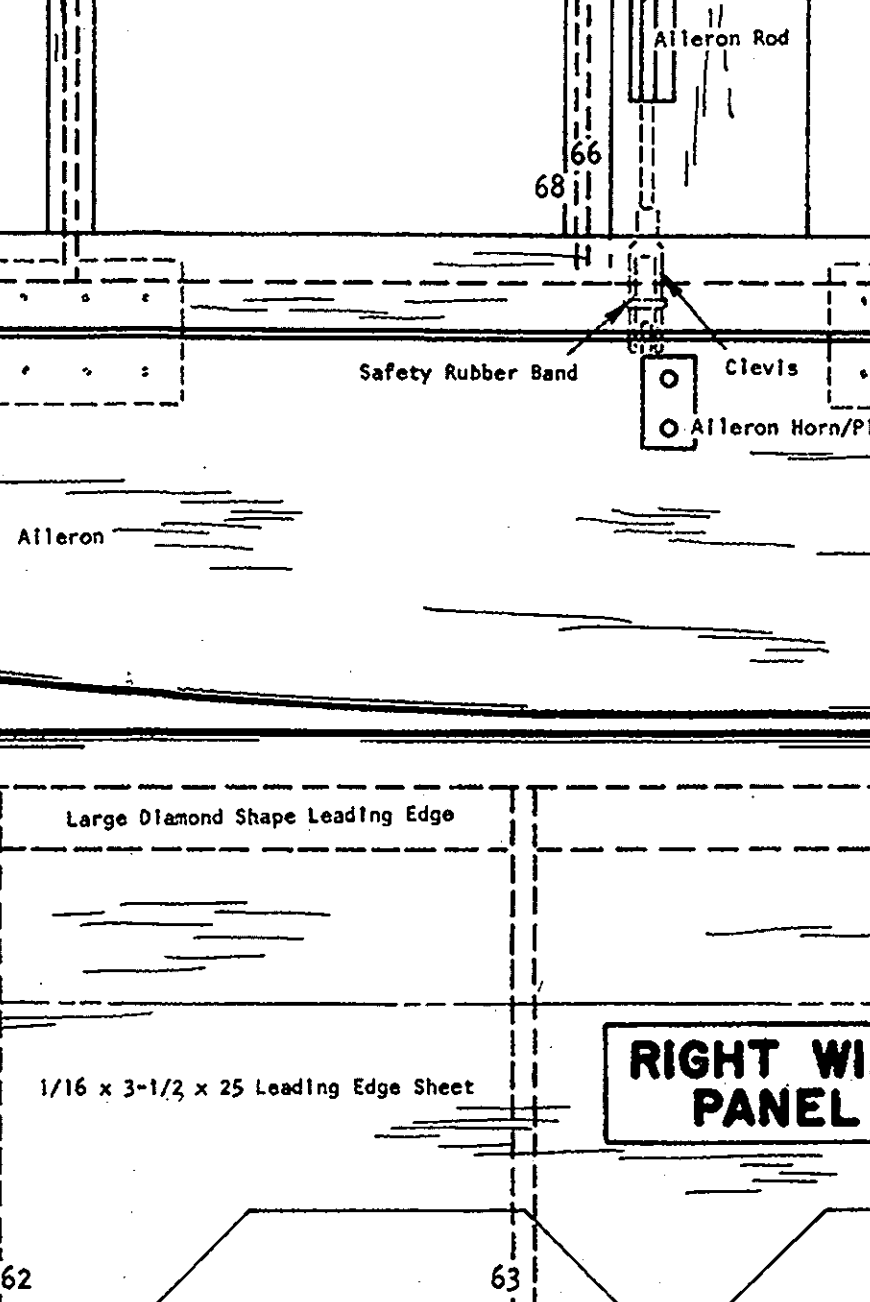
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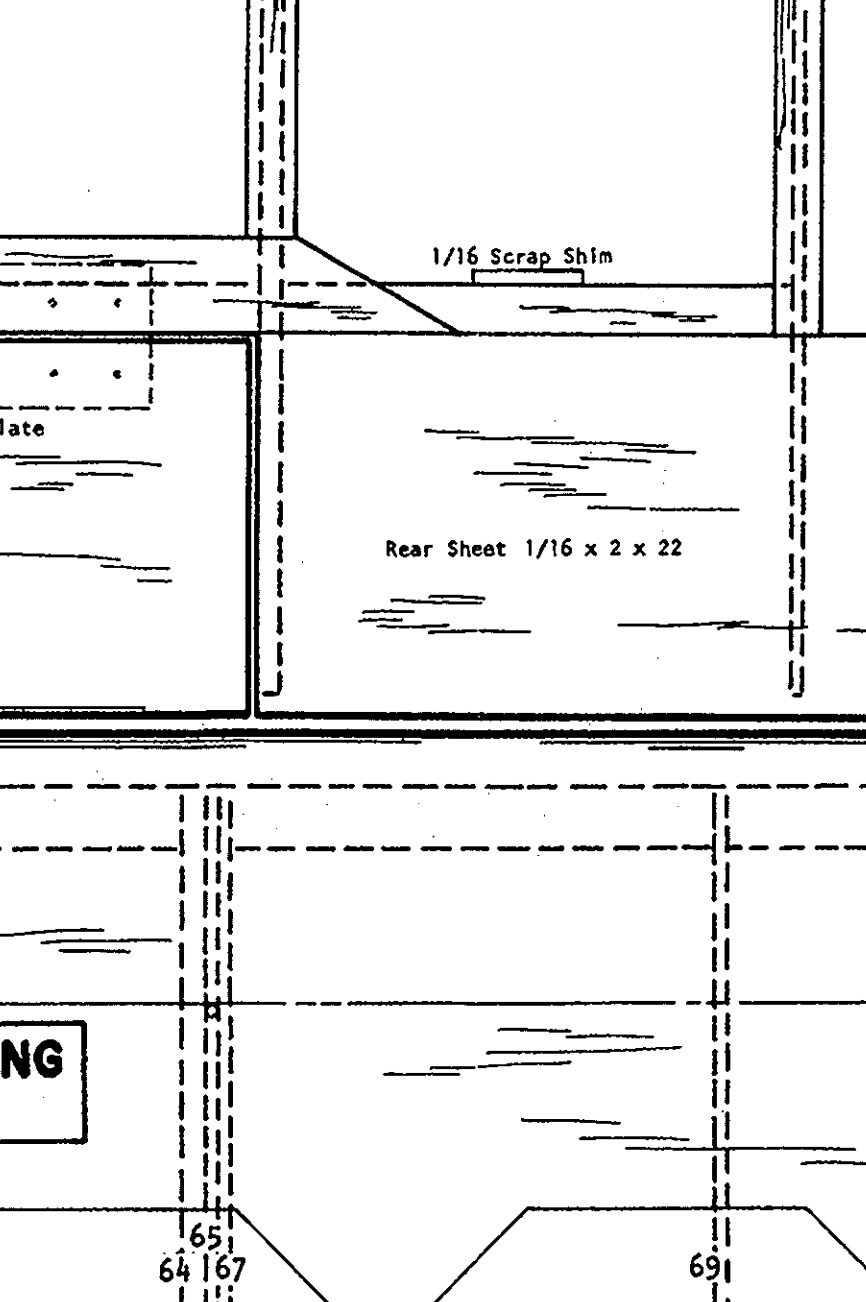
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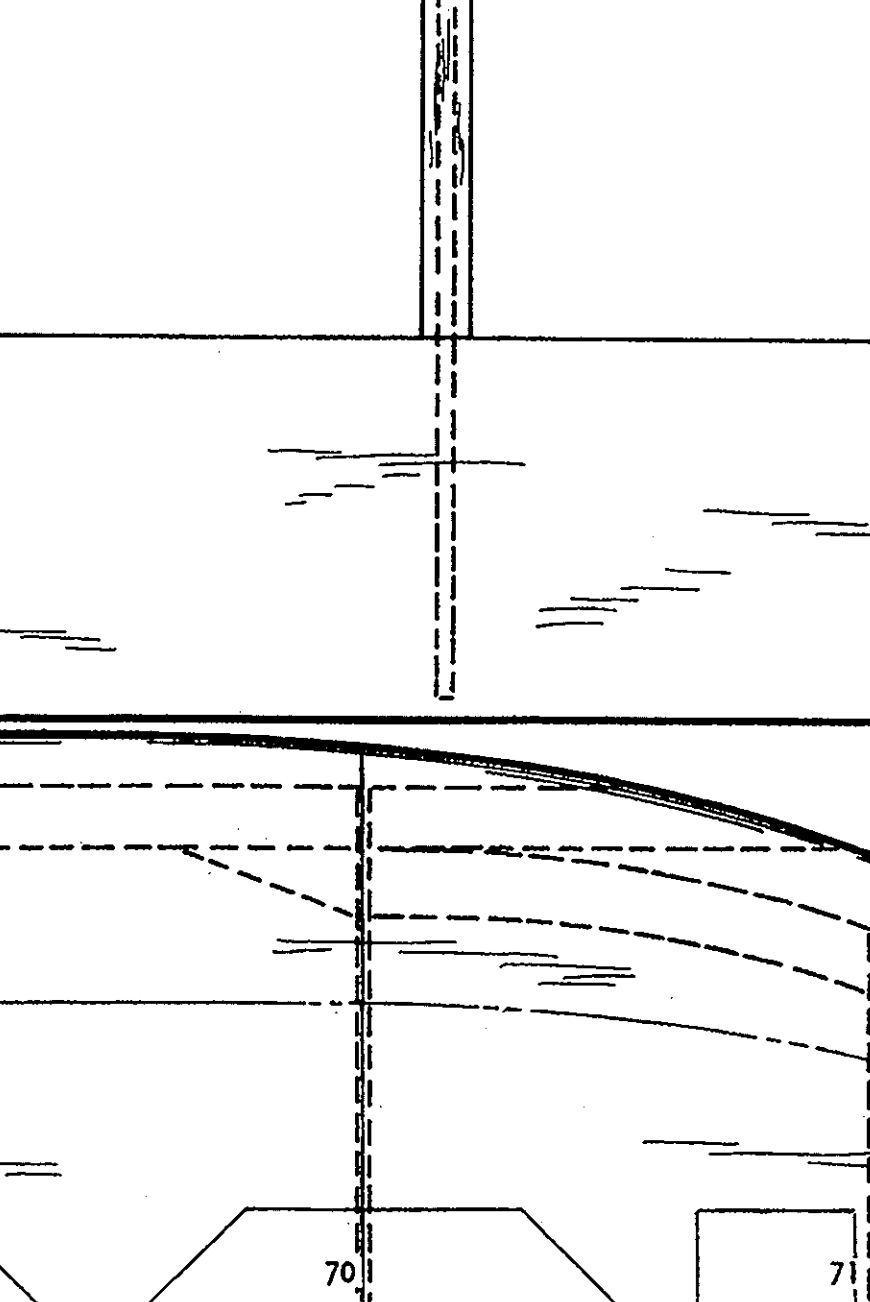
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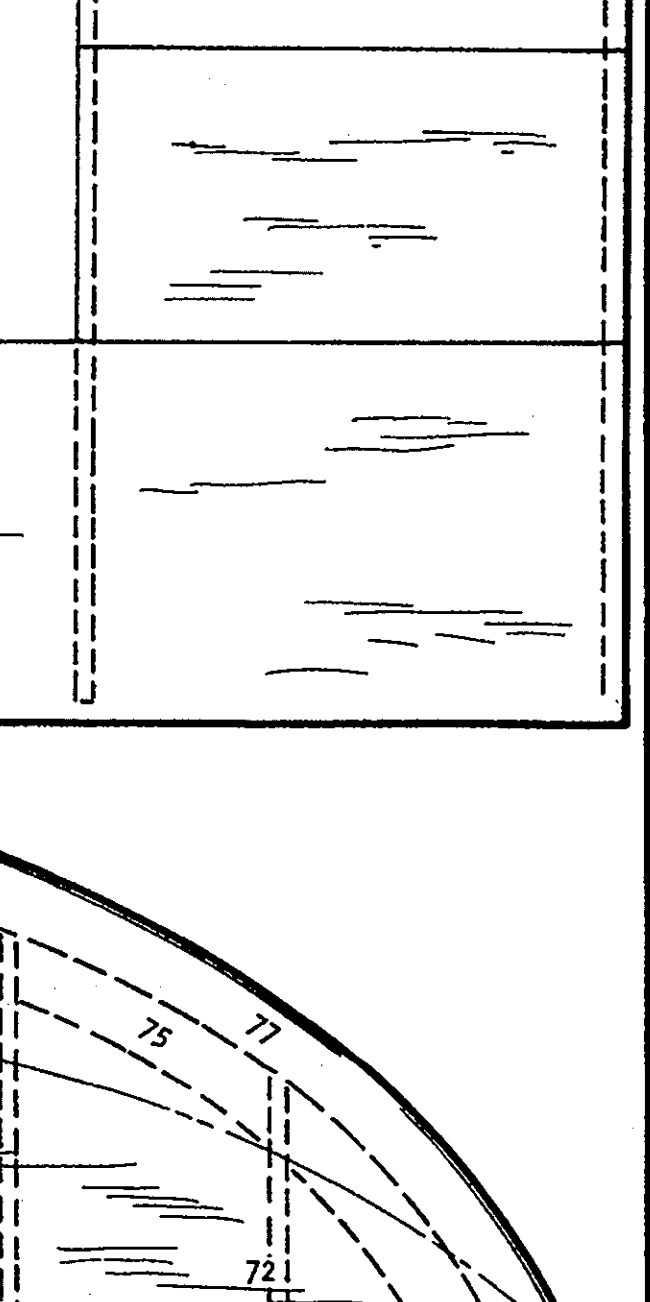
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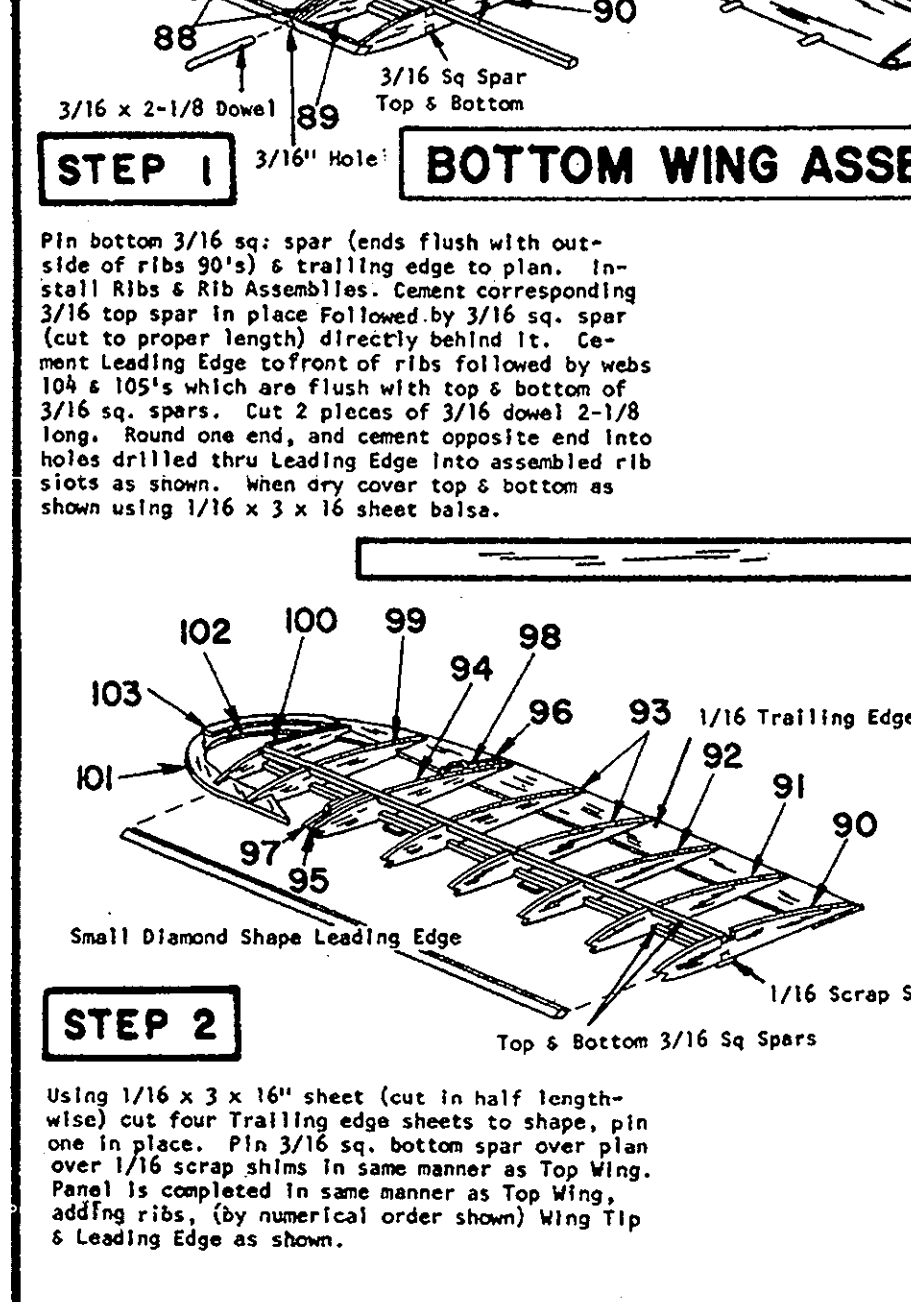
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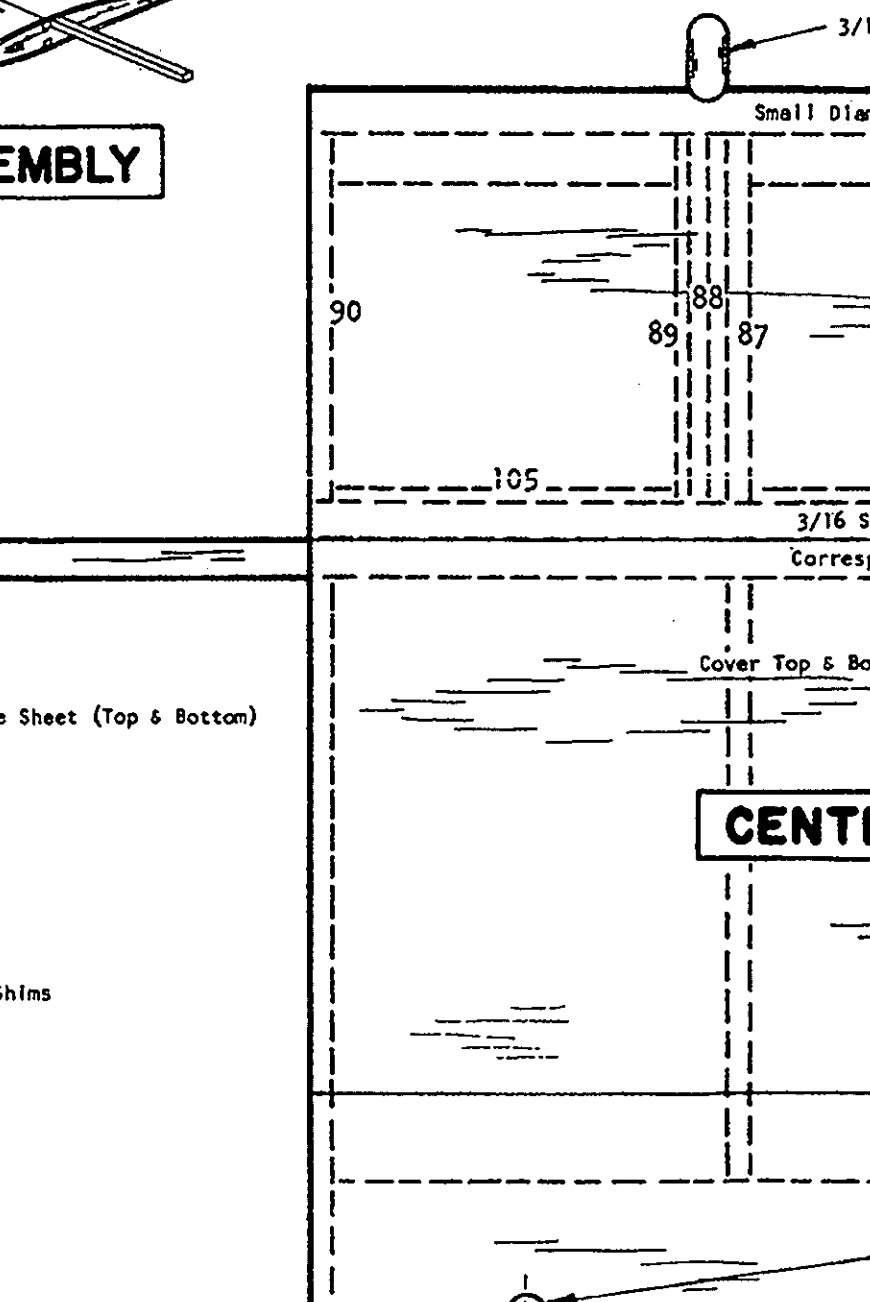
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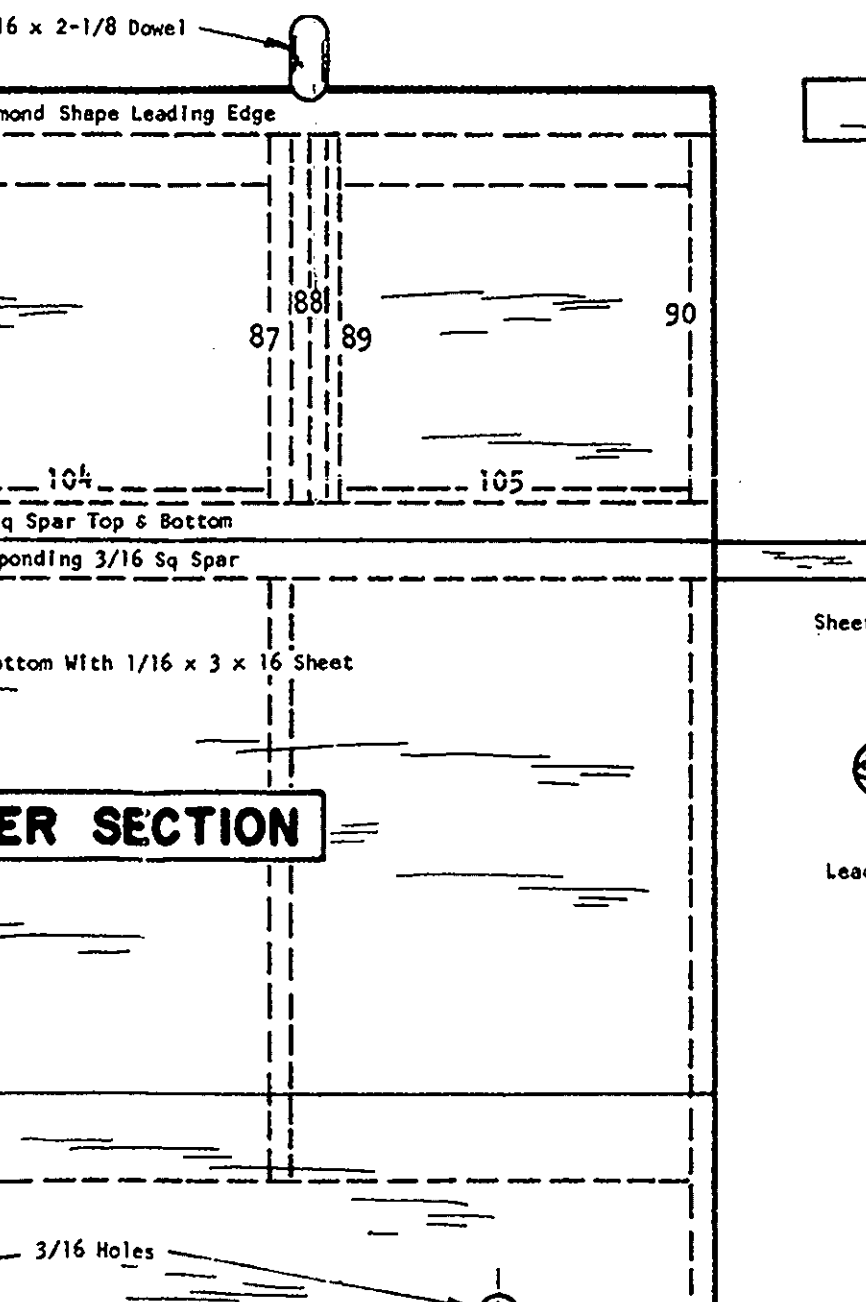
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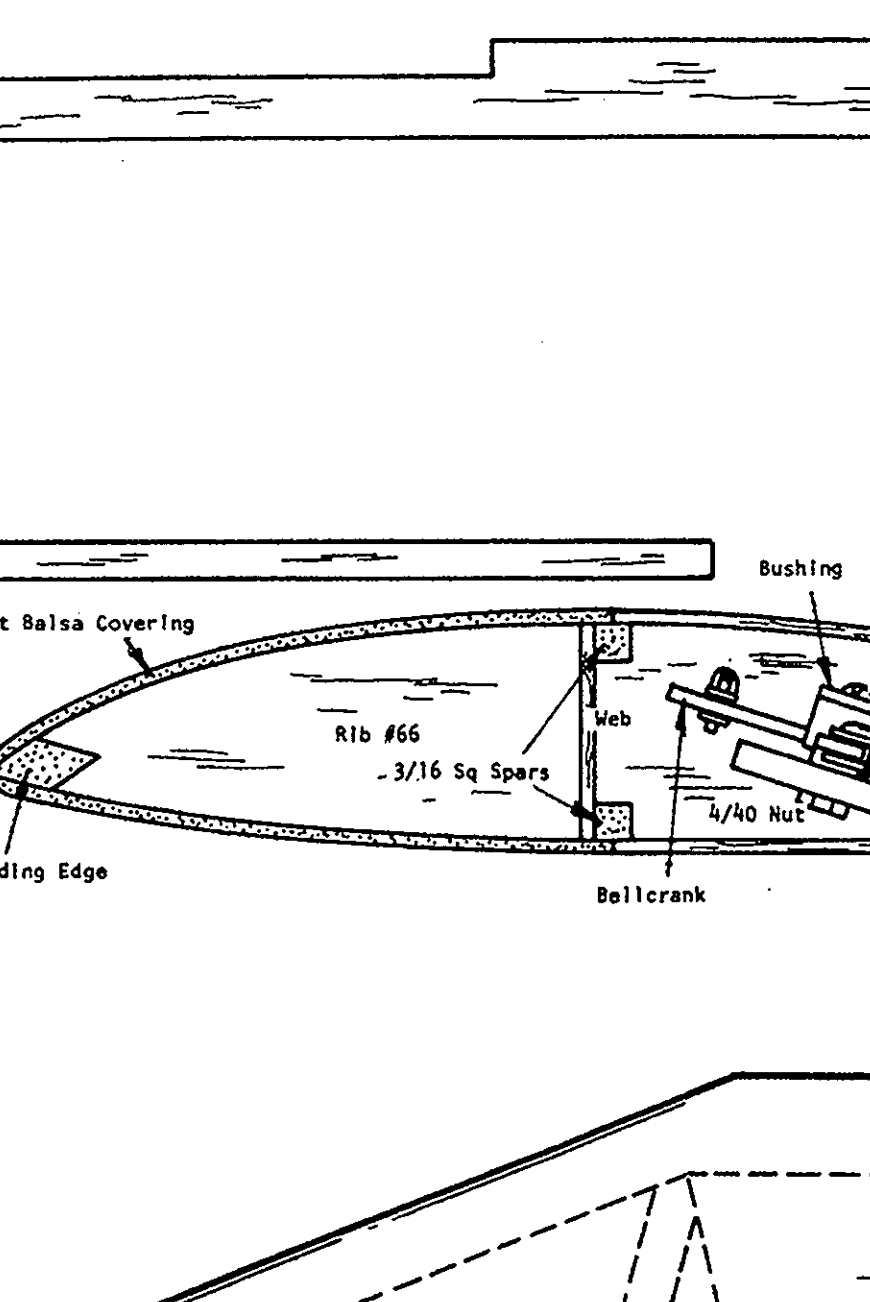
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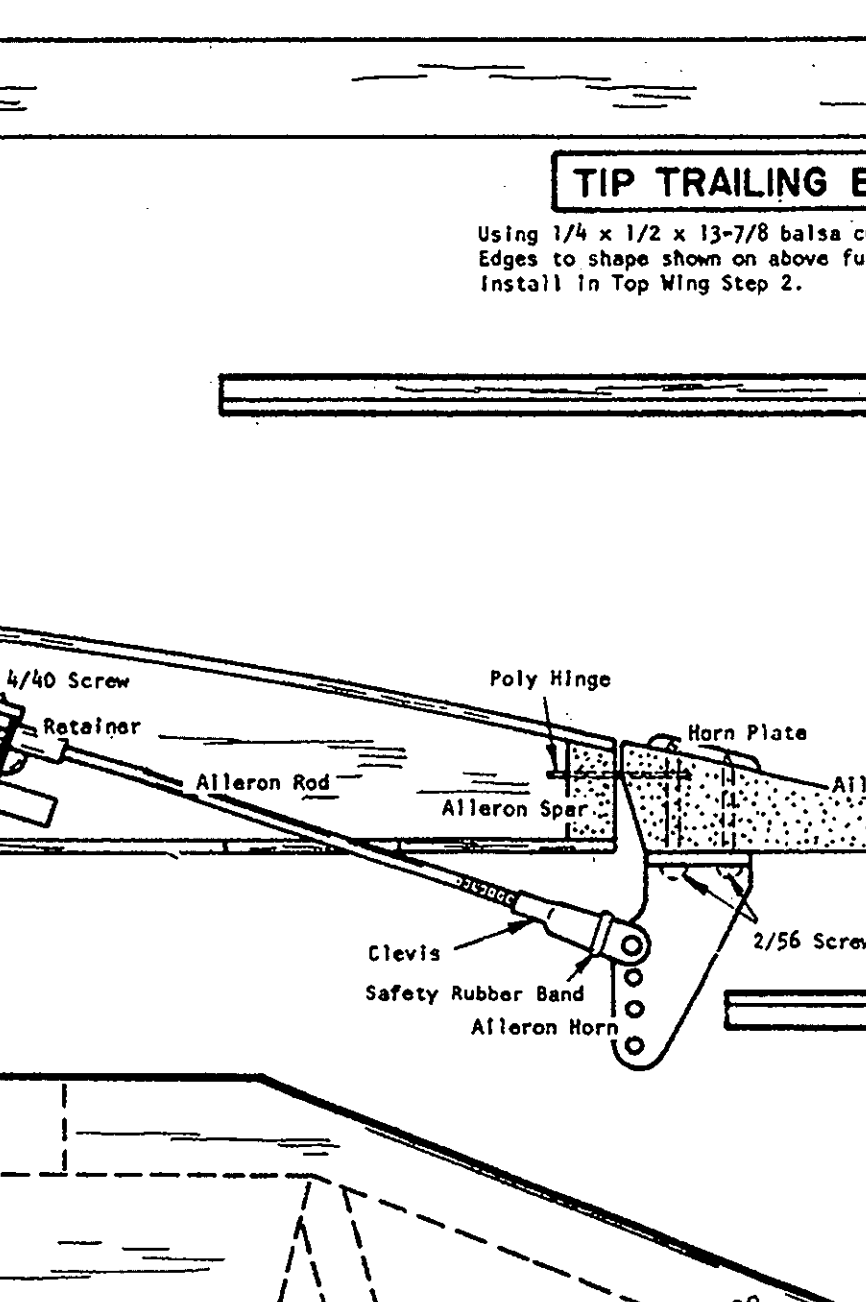
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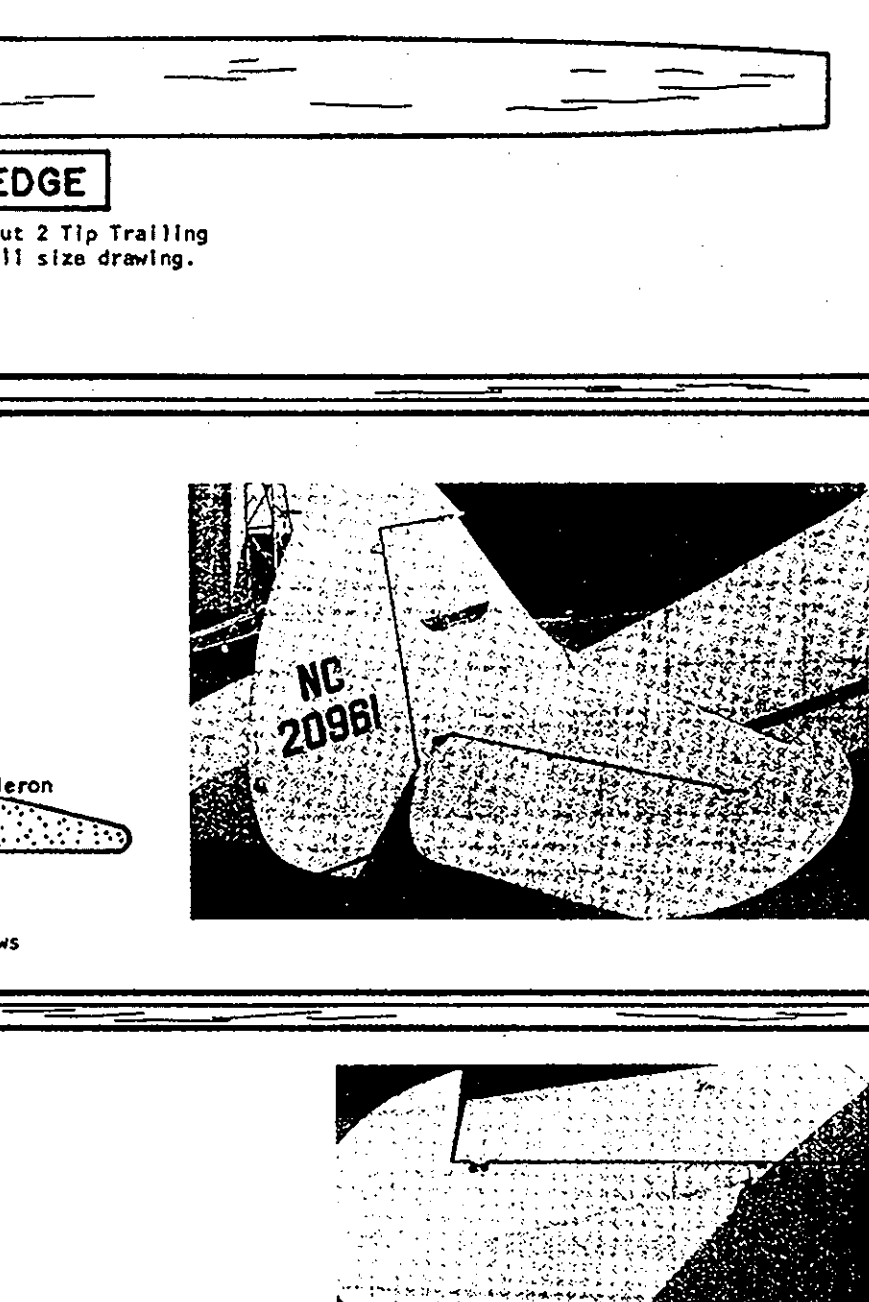
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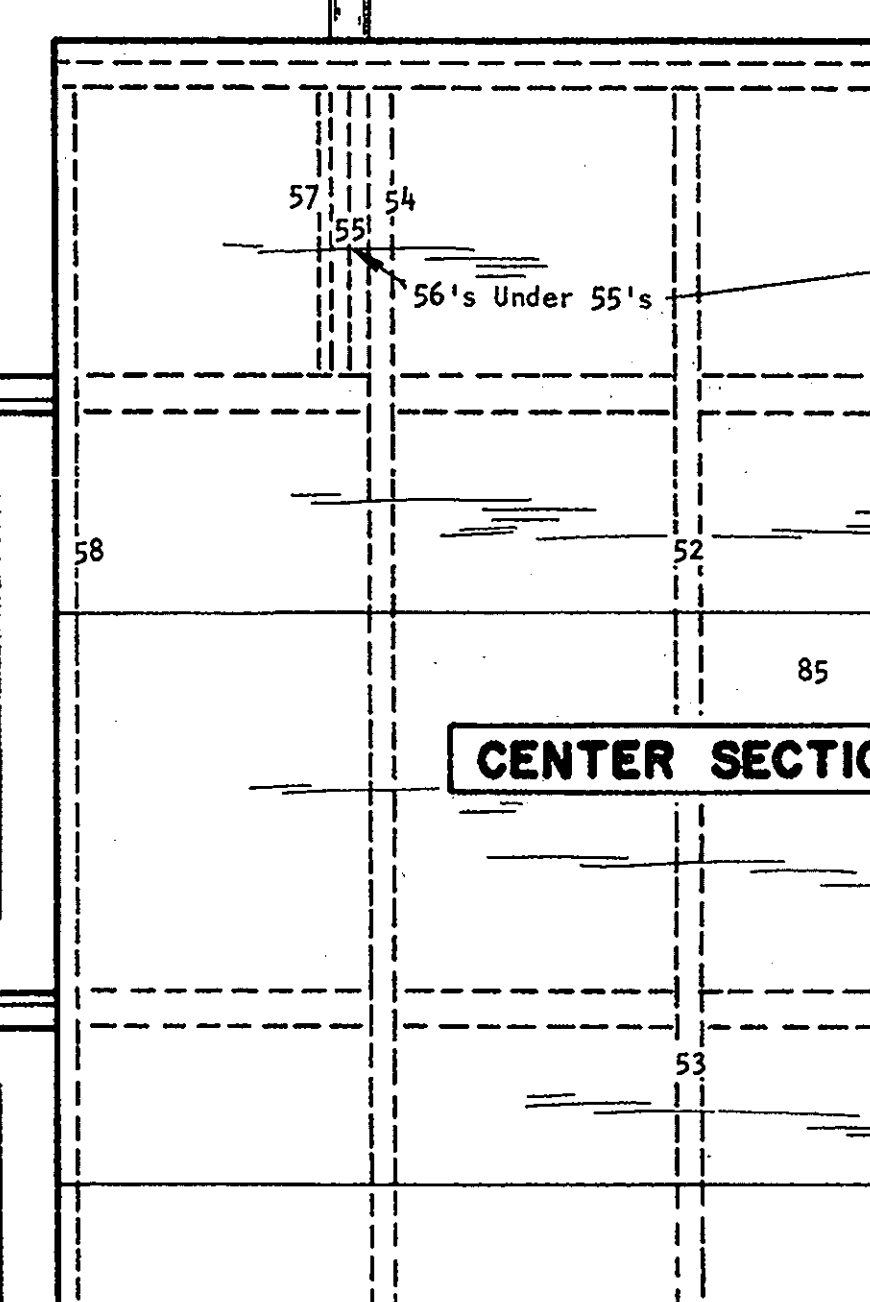
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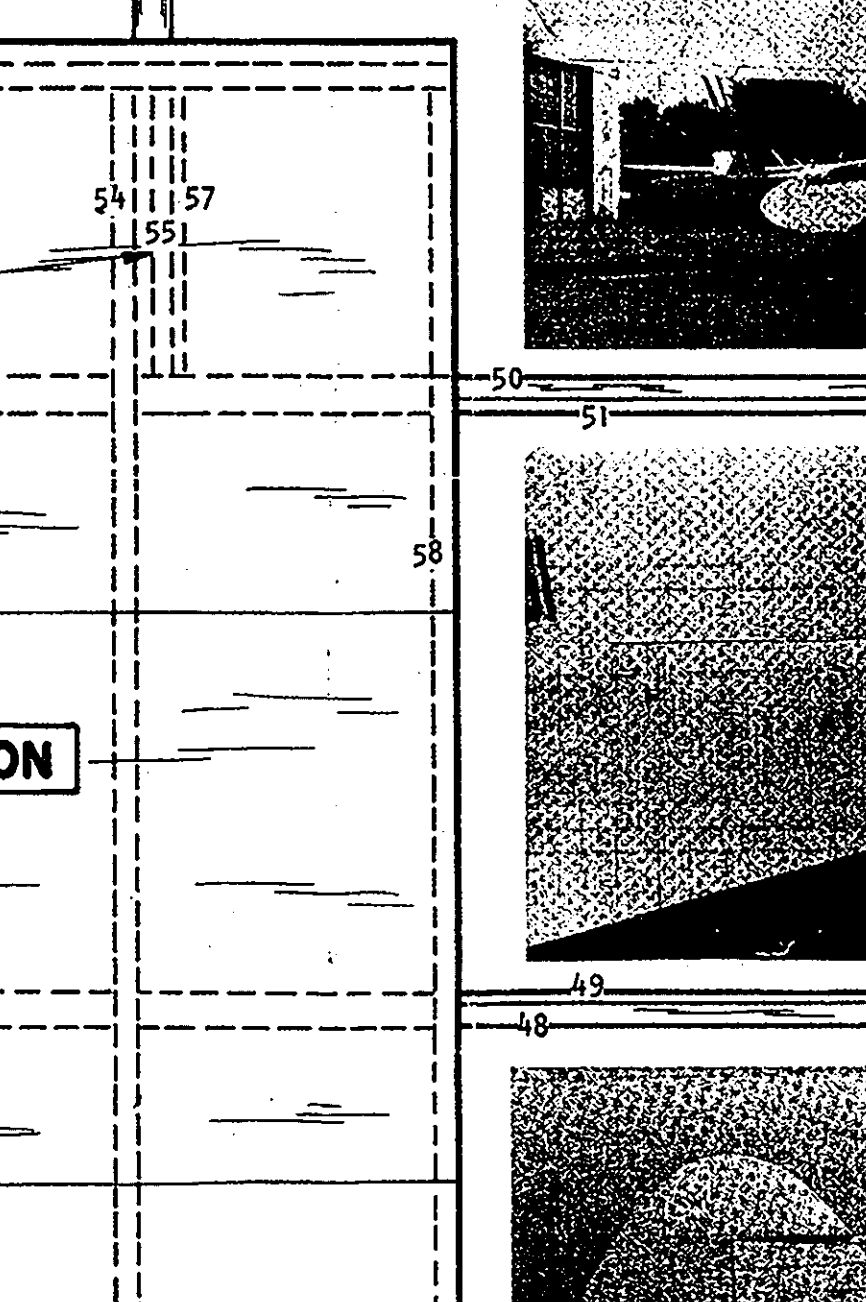
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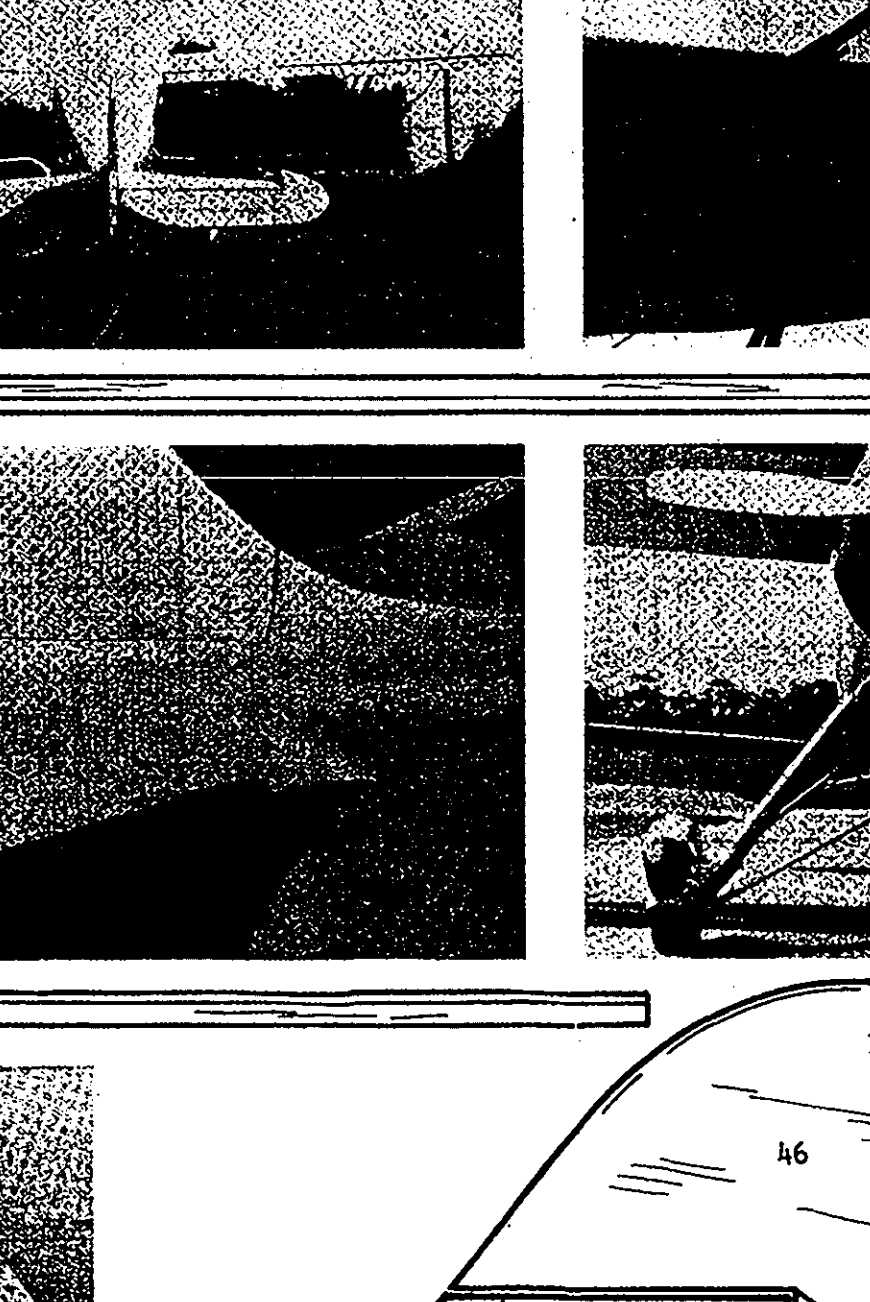
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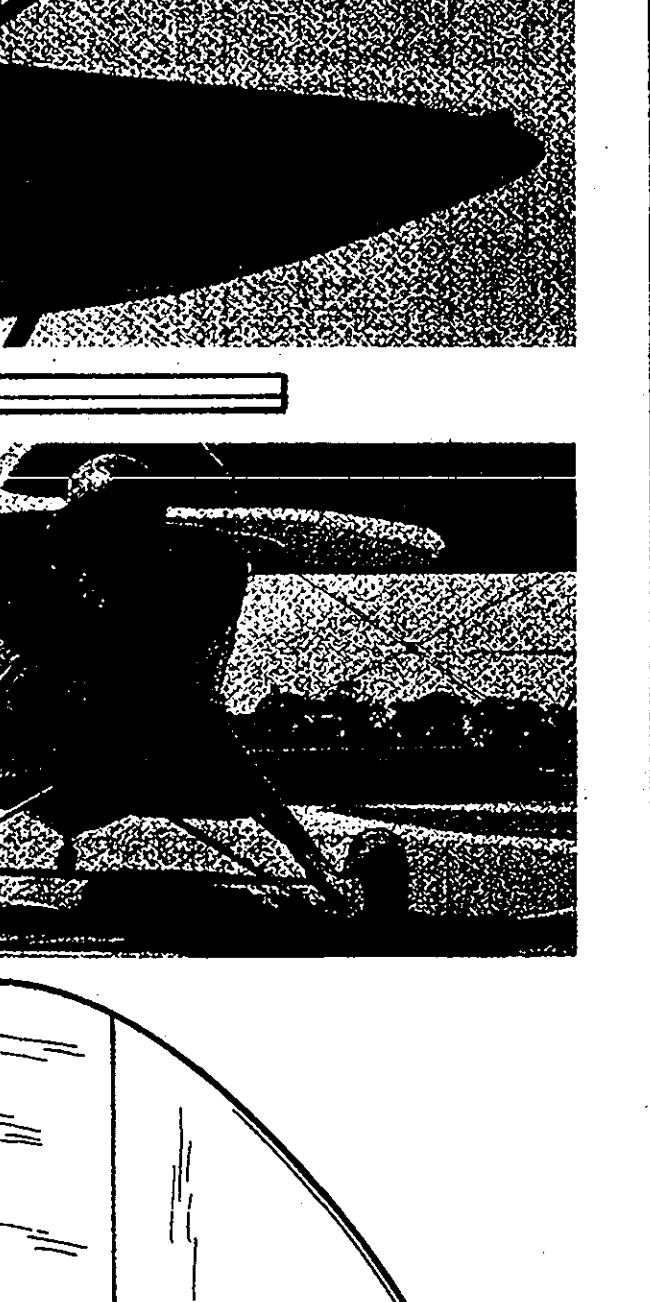
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