


FINAL ASSEMBLY INSTRUCTIONS

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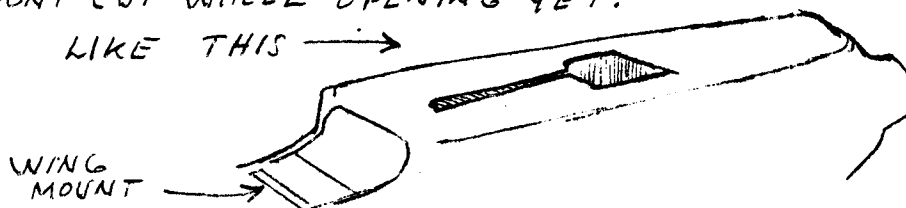
YOU WILL REQUIRE THE FOLLOWING ITEMS TO COMPLETE THE MODEL.

- 5 MINUTE EPOXY - DEVCON SUGGESTED
- MICROBALLONS - ANY KIND
- POLYESTER RESIN - K+B OR EQUIV.
- FIBERGLASS TAPE - 1-1/2" WIDE
- DRYWALL TAPE 6" WIDE - (SOMETIMES CALLED "GROUT STOP") ITS A FLAT MESHED FIBERGLASS CLOTH AVAILABLE AT MOST BUILDERS SUPPLY HOUSES.

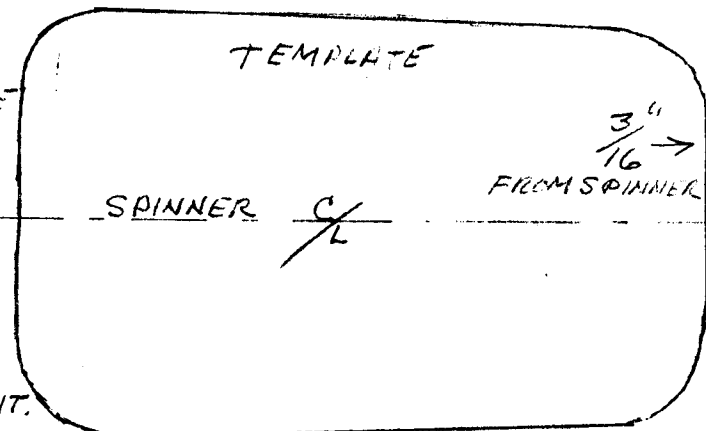
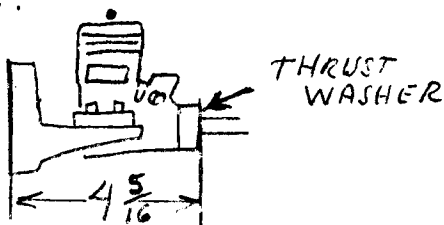
STEP I START WITH FUSELAGE !

REMOVE THE FORWARD WING MOUNT FROM THE FUSELAGE. YOU CAN NOW REACH INSIDE THE FRONT AREA TO DRILL + MOUNT THE NOSE GEAR. USE A LONG PIECE OF $\frac{1}{8}$ " PIANO WIRE SHARPENED TO A POINT AS A DRILL. LIKE THIS 

WHEN GEAR IS MOUNTED, MAKE CUTOUT IN FUSELAGE FOR GEAR LEG. DONT CUT WHEEL OPENING YET.



3. MOUNT ENGINE LIKE THIS:
CUT OUT FUSELAGE USING TEMPLATE AS GUIDE.

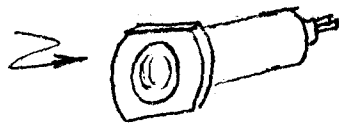


MOUNT ENGINE SQUARE WITH MOUNT.
USING DIMENSION SHOWN FOR MOST SPINNERS. ADD APROX $\frac{1}{8}$ " FOR GOLDBERG SPINNER. THE FIREWALL IS $4\frac{1}{4}$ " FROM THE NOSE.
ASSEMBLE ENGINE + MOUNT IN PLACE AND ADD A $\frac{1}{16}$ " SPACER BETWEEN SPINNER + THRUST WASHER. LOCATE EVERYTHING WITH HOT-STUFF OR ZAP OR WHATEVER YOU LIKE. LIGHTLY EPOXY MOUNT TO FIREWALL THEN REMOVE SPINNER + ENGINE AND DRILL FIREWALL WITH PIANO WIRE DRILL.

DRILL TWO $\frac{1}{4}$ " DIA HOLES IN FIREWALL, CENTERED IN THE MOTOR MOUNT. SPACE THEM FOR FUEL TANK FITTINGS. WE RECOMMEND YOU USE A 16-20 OZ SHAMPOO BOTTLE WITH THE NECK CUTOFF AND A SULLIVAN FITTING INSTALLED.

MAKE A BULK HEAD TO SUPPORT THE REAR OF THE TANK USING $\frac{1}{4}$ " THK SOFT BALS A.

LIKE THIS



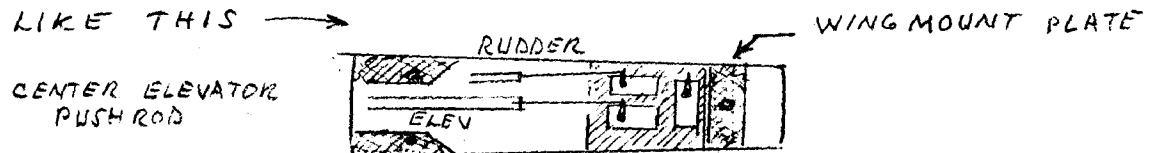
← SLIP FITTINGS THRU FIRE WALL THIS LOCATES TANK SOLIDLY.

DRILL HOLE FOR THROTTLE LINKAGE USING PIANO WIRE DRILL. THEN INSTALL APPROX 12" OF $\frac{1}{8}$ " DIA NYLON TUBING AS A LINKAGE GUIDE. LOCATE THE OTHER END OF THE NYLON TUBE IN THE TANK BULKHEAD.

INSTALL THE PLYWOOD WING MOUNT NOW USING EPOXY + CHOPPED FIBERGLASS TAPE-

LOCATE SERVOS + TRAY AS FAR FORWARD AS POSSIBLE.

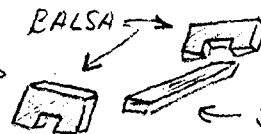
LIKE THIS



ELEVATOR PUSHROD MADE FROM $\frac{1}{4}$ " SPRUCE + $\frac{1}{16}$ " PIANO WIRE.

MAKE A HOLD DOWN FOR THE RECEIVER AND LOCATE BEHIND THE SERVOS.

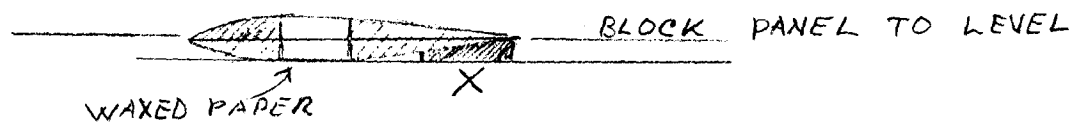
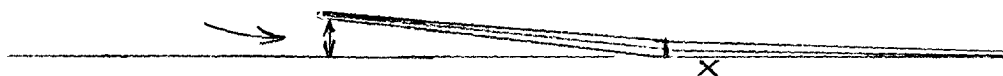
LIKE THIS.



EPOXY PLATES TO FUSELAGE SIDES

WING ASSEMBLY

BLOCK WING ON A FLAT SURFACE AND TRIAL FIT DIHEDRAL. DIHEDRAL IS 3" MEASURED AT TIP BLOCK GLUELINE UNDER ON TIP.



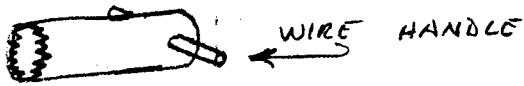
SPREAD A THIN COAT OF 5 MINUTE EPOXY ON BOTH PANEL JOINTS. DO NOT EPOXY SHEETING AROUND SERVO CUTOUT. IT CAN BE ALIG

WINGS - CONTINUED

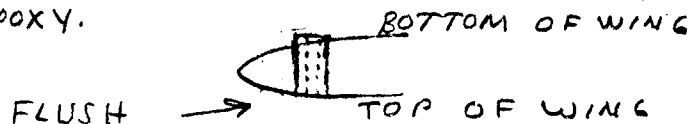
III

DOUBLE, TRIPLE CHECK PANEL ALIGNMENT AND DIHEDRAL. DO NOT REDUCE DIHEDRAL BY EVEN $\frac{1}{4}$ ".

NOW FIT WING TO FUSELAGE. IT SHOULD BE QUITE CLOSE EXCEPT AT L.E. WHERE A LITTLE SANDING ON TOP MAY BE REQUIRED. DRILL A $\frac{1}{2}$ " HOLE TO INSTALL FORWARD HOLDOWN BOLT.

USE A PIECE OF SHARPENED $\frac{1}{2}$ " BRASS TUBE AND TWIST CAREFULLY MAKE LIKE THIS →  ← WIRE HANDLE

INSTALL THE DRILLED DOWEL IN THE WING USING 5 MINUTE EPOXY.



NOW ADD 1" GLASS CLOTH TO CENTER JOINT OF WING. SQUEEGEE 5 MINUTE EPOXY INTO THE TAPE QUICKLY WHILE WARMING EPOXY WITH A HAIR DRYER GUN. THIS ELIMINATES SANDING A LUMPY SEAM LINE.

NEXT ADD THE GLASS CLOTH (DRYWALL TAPE) USING POLYESTER RESIN AND SQUEEGEE IN PLACE. OVERLAP APPROX 2" ON C/L. DON'T LET IT RUN INTO THE AILERON LINKAGE.

CENTER + FIT WING TO FUSELAGE. MAKE CERTAIN AILERON LINKAGE DOES NOT HIT REAR WING MOUNT BRACE. TRIM BRACE IF NECESSARY.

LOCATE WING AT FORWARD BOLT FIRST. DRILL + TAP $\frac{1}{4}$ " X 20 INTO PLYWOOD PLATE. IF YOU SCREW UP, DRILL PLATE AND INSTALL A "T" NUT. BE PATIENT!

WHEN YOU'RE SURE THE WING IS CENTERED, DRILL + TAP REAR HOLD DOWNS AND RE-CHECK ALIGNMENTS. THEN BOLT SOLIDLY.

STABILIZER

JOIN STAB HALVES USING 5 MINUTE EPOXY ON EACH HALF.

TIP 750 - 3 $\frac{1}{2}$ "
TIP 825 3"



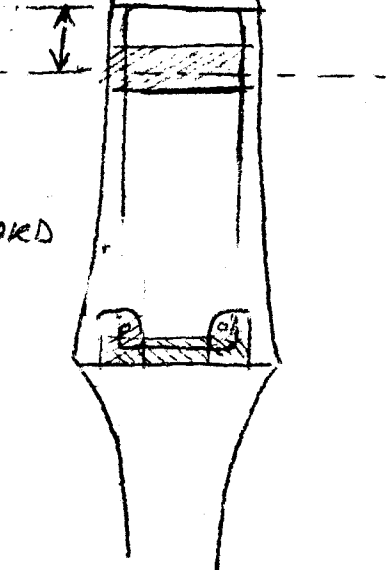
FIT STAB TO FUSELAGE OPENING. ENLARGE CUTOUT AS REQUIRED USING 100 GRIT SANDPAPER AND A SHARP EXACT-O KNIFE. THE FIT MUST BE ABSOLUTELY LOOSE OR YOU WILL DISTORT THE FIN.

LOCATE STAB WITH TINY SPOTS OF HOT STUFF AND SLIVERS OF Balsa. WHEN ALIGNMENT IS PERFECT WITH WING - ~~NOT FIN~~ EPOXY IN PLACE AS DESCRIBED ON "FUSELAGE COMPLETION" SHEET.

FUSELAGE COMPLETION

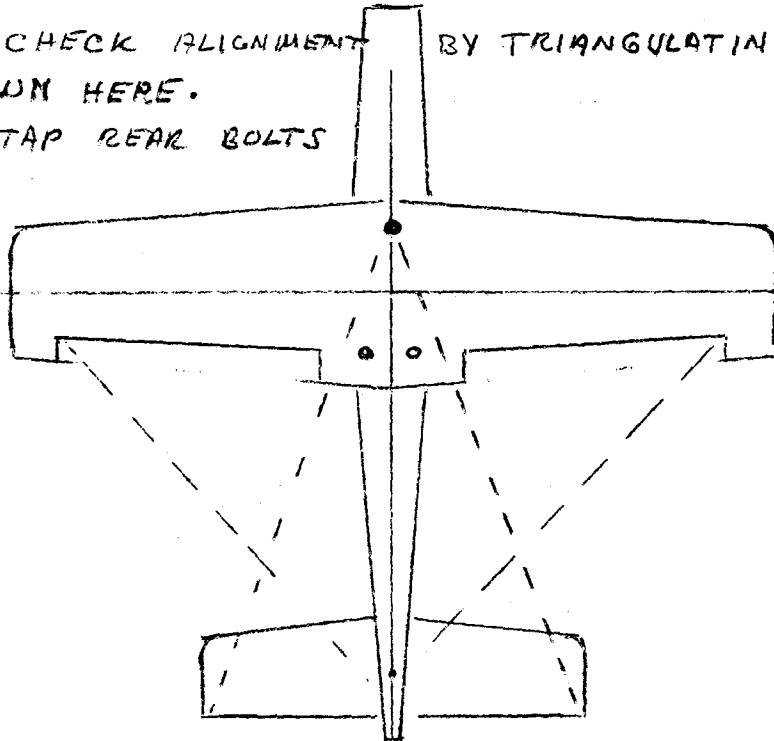
MOUNT PLYWOOD PLATES AS SHOWN
FIT CAREFULLY USING MINIMUM QTY'S
OF EPOXY AND CHOPPED FIBREGLASS CLOTH.

$1\frac{1}{4}$ "



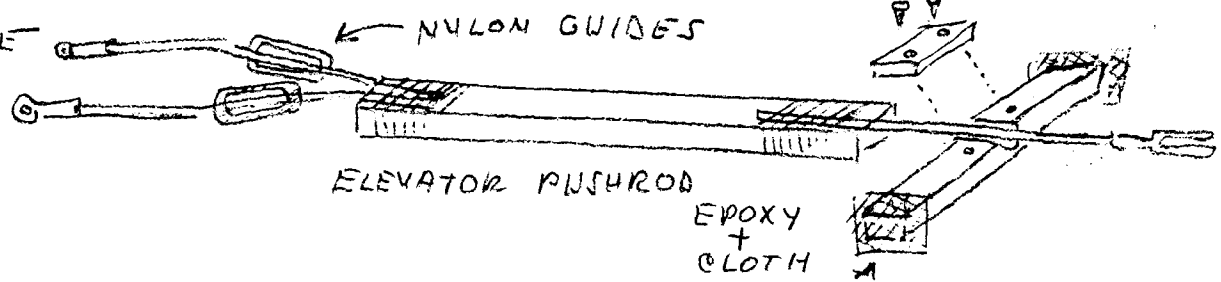
ALIGNMENT

1. CENTER WING EXACTLY AND DRILL + TAP FORWARD BOLT.
2. DOUBLE CHECK ALIGNMENT BY TRIANGULATING AS SHOWN HERE.
3. DRILL + TAP REAR BOLTS

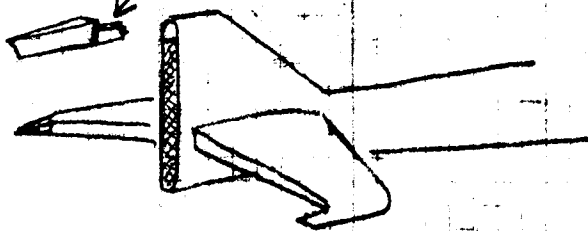


4. WITH WING IN PLACE, LOCATE AND MOUNT STAB ON DATUM LINE. MAKE A TINY EPOXY FILLET INSIDE FUSELAGE AROUND STAB. USE 5 MINUTE EPOXY AND CHOPPED FIBREGLASS CLOTH.
5. INSTALL TAILPOST USING 5 MINUTE EPOXY.
6. MAKE A MINIMUM SIZE FILLET AROUND STAB ON OUTSIDE OF FUSELAGE USING 5 MINUTE EPOXY, MICRO BALLOONS AND A WET FINGER FOR CONTOURING.
7. PUSHRODS SHOULD BE SUPPORTED AT SERVO END AND SHOULD EXIT AT REAR THROUGH LARGE NYLON GUIDES.

EXAMPLE

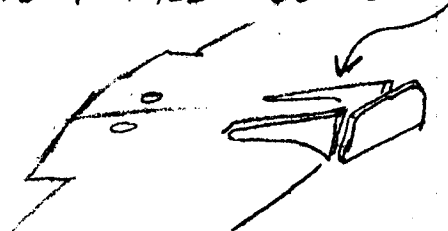


ADD RUDDER FAIRING LIKE THIS:
CUT END TO FIT



USE RUDDER TAPED IN PLACE AND ALIGNED WITH FIN AS A GUIDE.

NOW ADD WING FAIRING PIECES AND SAND TO FIT FUSELAGE
REMOVE WING + FILL CENTER WITH A VERY COARSE MIX OF RESIN AND MICROBALLOONS. (PUT CLAY IN BOLT HOLE).



DRILL THRU THE RESIN WHEN DRY AND FINISH SAND TO CONTOUR.

REINSTALL WING USE A LONG STEEL BOLT FOR FORWARD HOLDOWN AND NYLON BOLTS AT REAR. CAREFULLY REMOVE REAR BOLTS AND INSTALL PLYWOOD PLATE USING 5 MINUTE EPOXY ON CENTER OF PLATE AND HOT STUFF EDGES. WHEN DRY, DRILL THRU THE PLATE.

CUT OUT WHEEL WELL SHEETING INSIDE THE LINES FIRST THEN FIT YOUR GEAR.

WITH PLANE ASSEMBLED AND WHEELS ON THE GEAR, INSTALL NOSE WHEEL ON STRUT. ALLOW PLANE TO SIT APPROX 1-2° NOSE HIGH. NOT NOSE LOW. THAT DOES NOT WORK AT ALL.

NOW CUT THE WHEEL OPENING FOR THE NOSE WHEEL.

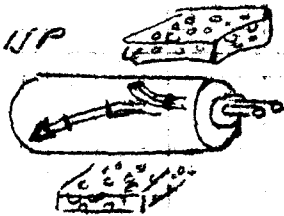
WE HAVE INCLUDED SOME ADDITIONAL INFO WHICH YOU MAY BE INTERESTED IN.

THE C.G. IS CORRECT WHEN THE PLANE JUST BALANCES ON THE MAIN GEAR WITH AN EMPTY TANK.
REFER TO 'FEB'80 RC MODEL BUILDER FOR FURTHER INFO.
OH YES, I GOT THE AILERON DIFFERENTIAL INFO BACKWARDS IN THE ARTICLE. IT'S MORE "UP" THAN "DOWN"

ODDS + EVENS

TANK SET UP

16 03
SHAMPOO
BOTTLE



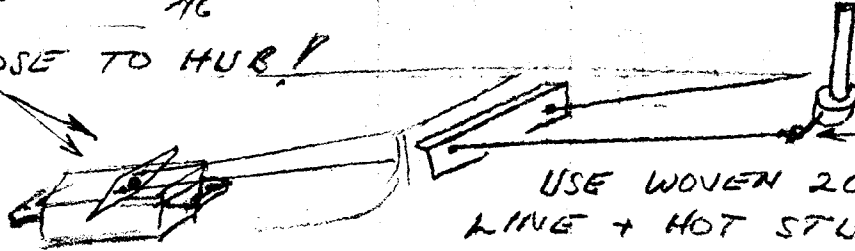
SPONGE OVER + UNDER TANK.



USE TWO TUBES AND LOCATE INTO FIREWALL WITH FUEL TUBING. TO CARBURATOR. TO PRESSURE FITTING ON PIPE HEADER.

STEERING: DRILL $\frac{1}{16}$ HOLES ON EITHER SIDE OF SERVO ARM HUB

DRILL CLOSE TO HUB!



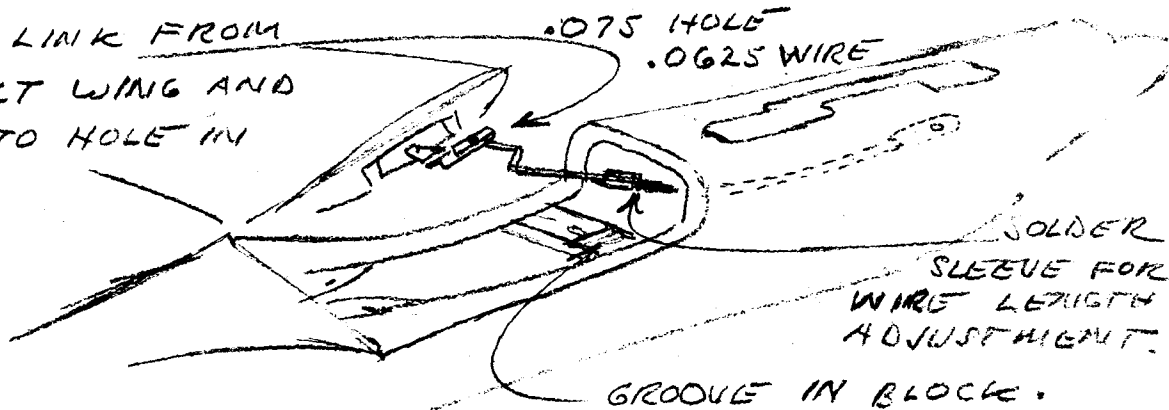
MAKE NEW STEERING ARM FROM .050 WIRE

USE WOVEN 20 LB TEST FISHING LINE + HOT STUFF TO ARM

ON ONE SIDE. THEY FEED THROUGH GUIDE AND BOTH HOLES IN SERVO ARM, THROUGH GUIDE AGAIN AND ATTACH TO OTHER SIDE OF NEW STEERING ARM. WITH GEAR LOCKED "DOWN", PULL LINE TAUT + HOT STUFF THE KNOT. CENTER WHEEL AND PUT A DROP OF HOT STUFF ON THE LINE AT THE SERVO ARM.

RETRACT SET UP

PUT Z BEND IN LINK FROM NOSE GEAR. TILT WING AND SLIP WIRE INTO HOLE IN RETRACT ARM.



.075 HOLE
.0625 WIRE

SOLDER SLEEVE FOR WIRE LENGTH ADJUSTMENT.

GROOVE IN BLOCK.