

TOP FUSELAGE SHEET
MAKE BY USING 2 SHEETS
OF 1/8" x 3" x 36" AND ONE
1/8" x 1" x 36". GLUE INTO
ONE SHEET.

* WEBRA 61
GOLDBERG
SPINNER 2"

3/8" x 3/4" x 6" MOTOR MOUNT STOCK
NOTCH LEFT RAIL TO FIT F-1

4-40 BLIND NUTS

IN SEVERAL PLACES TWO TYPES OF GEAR
INSTALLATION ARE SHOWN AT THE SAME
TIME TO SAVE SPACE. CALL TO YOUR
ATTENTION ARE: THE SIG NOSE GEAR
BLOCK, MAIN LANDING GEAR BLOCKS,
GOLDBERG RETRACT UNITS.

CUT OUT FOR RETRACTS

CLEARANCE HOLE FOR
STEERING PUSHROD

5/32" WIRE NOSE GEAR CAN BE
ADJUSTED FOR DESIRED HEIGHT.
SAME WIRE IS USED IN THE
GOLDBERG UNIT, SHORTENED AS
REQUIRED.

Bonanza
KIT RC-41

GLUE INTO ONE SHEET
FOR FUSELAGE BOTTOM

* BUILDING MATERIALS FOR THE GOLDBERG
RETRACT INSTALLATION ARE NOT SUPPLIED
IN THE KIT. (SERVO ACCESS HATCH, RE-
TRACT MOUNTING ETC.) THE DETAIL DRAW-
INGS ARE SHOWN AS INSTALLED IN PROTO
TYPE MODEL TO AID THE BUILDER IF A RE-
TRACT MODEL IS BEING BUILT.

DANGER! Read These Warnings:
Do not fly control line or towline models within 300 feet of electric power
lines. Instant death from electrocution can result from coming near them.
Direct contact is not necessary.
A model airplane motor gets very hot and can cause serious burns. Do not
touch the motor during or after operation. Keep clear of the propeller.
It can cut off a finger or put out an eye. Make sure the propeller is
securely fastened in place and is not cracked. Model airplane fuel is flam-
mable and poisonous. Take the same precautions while transporting and
using it that you would with a can of gasoline or a bottle of poison.
Remember that it is possible to lose control of a model airplane. Do not fly
in locations where the model may hit people or damage property if loss of
control occurs. Check your model and equipment regularly to insure it is
in safe operating condition.

ABOUT Balsa WOOD:
We do not deal in just any good grade of balsa in our
kits as the supply situation permits. The world-wide
demand for balsa wood is so great that it is difficult
to obtain as high an average quality as used to be the
case.
Every piece of balsa supplied cannot be 100% perfect
or 45 pieces would have to be greatly increased. Man-
ual starts or small knots do not affect wood strength
even with the very best grades of balsa. There is a
natural tendency for some sticks or sheets to im-
prove from being cut off from a perfectly square
block because of built-in stresses. In most cases,
this can be removed by allowing the balsa to ac-
climate to the humidity of the room in which it is
used. The edges of balsa sheets by trimming,
using a metal straightedge.

NOTE: THE PLAN PAPER CAN SHRINK OR
EXPAND WITH HUMIDITY AND TEMPER-
ATURE CHANGES, SOMETIMES AS MUCH
AS 1/4". THE ORIGINAL DRAWINGS WERE
DRAWN ON STABLE MYLAR FILM AND ALL
THE PART PATTERNS WERE CHECKED
AGAINST THEM. THEREFORE THE PARTS
SHOULD ALL FIT TO EACH OTHER WITH-
OUT MUCH MISMATCH. ANY SMALL VARI-
ATION OF THE PLAN DRAWING FROM THE
PART THAT MAY BE NOTICED WILL NOT
CAUSE SERIOUS DIFFICULTY DURING AS-
SEMBLY BECAUSE THE VARIATION WILL
BE SMALL IN ANY ONE AREA OF THE PLAN.

RIB AND FORMER PATTERNS ARE SHOWN
ON THE PLAN AND IN THE BOOK FOR THE
CONVENIENCE OF THE KIT BUILDER IF
REPAIRS SHOULD BE NECESSARY.

CAUTION
AN EXTRA QUANTITY OF TAIL WILL REQUIRE SEVERAL OUN-
CES IN THE NOSE. BE SURE AND CARVE
THE TAIL DOWN TO THE INDICATED AIRFOIL SHAPES SO THERE
WILL NOT BE EXCESS WOOD WEIGHT. GO EASY ON THE FILLER
COAT AND PAINT ON THE TAIL SINCE THIS CAN ADD EXTRA
WEIGHT.

ALTERNATE CONTROL SURFACE HINGES
SECOND METHOD FOR HINGES: Use #10 Strip Nylon
(S1427) and round toothpicks for a strong method of hinge
installation. Toothpicks are inserted into 4 drilled holes.
(Put a drop of Sig-Bond Glue into each hole). Use a razor
saw to cut the toothpick off flush with the surface and sand
smooth. Later, while painting, put the control surface in one
direction or the other to expose the hinge line areas to the
paint spray.

CROSS-SECTION
Round Toothpicks
Nylon
NOTE: The nylon hinge material and round
toothpicks are not
furnished in the kit.

NOTE: RADIO, SERVO, RETRACTS, EN-
GINE, MANIFOLD, SPINNER, ETC., ARE
SHOWN AS SET UP IN THE PROTO TYPE.
LOCATIONS FOR OTHER TYPES OF EQUIP-
MENT CAN BE DETERMINED BY BUILDER.
THE FULL SIZE BULKHEAD DRAWINGS
ARE PROVIDED FOR THIS PURPOSE.

LIMIT OF LIABILITY
In use of our products, SIG Manufacturing Co.'s only obli-
gation shall be to replace such quantity of the product
proven to be defective. User shall determine the suit-
ability of the product for his or her intended use and
shall assume all risk and liability in connection therewith.

AN ASTERISK * INDICATES AN ITEM NOT
FURNISHED IN THE KIT. IF THE SUGGESTED
BRAND NAME IS NOT AVAILABLE, AN EQUIVA-
LENT PRODUCT MAY BE SUBSTITUTED.

BONDING ABS
Remove all shine with 220 Grit sandpaper on the in-
side of the cabin to prepare the surface for glue. The
mating surface for an 1/8" to 3/16" around the edge
of the clear windows should also be prepared by scuf-
fing with 220. This light scuffing of both ABS and
clear will aid in bonding these materials. The 1/8"
to 3/16" fuselage (cabin) should also be sanded to aid
bonding to balsa fuselage. Hot Stuff is recommended
for bonding ABS to balsa. Hot Stuff, M.E.K.,
and SIG Model Cement for bonding to balsa.

MAKE CONTROL SURFACE
RIBS THROUGH FUSELAGE,
FROM RIB LINE TO SURFACE.
CUT SERVO END OF Balsa
TO EXACT LENGTH NEEDED.
MEASURE AND INSTALL SERVO
BY CONNECTING WIRE END.

USE RC LINKS AT THE TAIL END SO THAT TRIMMING
ADJUSTMENTS CAN BE MADE QUICKLY.

OIL PROOF YOUR MODEL!
One of the most destructive things that can hap-
pen to a model is allowing engine oil to soak into
bare, untreated balsa or plywood. It will cause
glue joints to loosen and results in a steady in-
crease in weight. An oil soaked model cannot
be properly repaired or repainted after a crack-
up, since glue and finish will not hold. Cover all
wood parts of the model and put on enough coats
of finish so that oil cannot soak in. Don't leave
any exposed wood on the outside. Around the
nose and engine compartment, apply extra effort
at oil proofing. Coating the firewall and front
joints with epoxy glue is best, but several extra
coats of dope or paint will also do the job. Take
special care during building to use plenty of
epoxy glue to attach the firewall and coat the
back of the firewall and the firewall braces with
the glue. Fill any cracks with epoxy.

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PLAN SHEET 1 OF 2

BEECHCRAFT **Bonanza** E33A
Designed By HANK POHLMANN

RC SPORT SCALE KIT RC-41 RC SPORT FLYING

WING SPAN: 64" ENGINE SIZE: 60 Cu. In.

WING AREA: APPROX. 653 Sq. In. LENGTH: 44"

WEIGHT: APPROX. 7-1/2 Lbs. APPROX. 8-1/2 Lbs. WITH RETRACTS

Drawn By HANK POHLMANN And DARRYL THOEM

Sig Manufacturing Co., Inc. . . . Montezuma, Iowa 50171 U.S.A.



IN ANY CONFLICT BETWEEN THE PLAN AND
THE BOOKLET, FOLLOW THE BOOKLET IN-
STRUCTIONS. THEY ARE REVISED MORE
FREQUENTLY THAN THE PLAN.

HINGING HINTS

1. Use fine sandpaper for glue installation.
2. The glue should be applied to the mating surface of the hole and the mating surface of the hole. Have the same side down on all 4 sides.
3. The only side that is glued is the side of the hole that is to be glued. The hole is not glued on the other side. The hole is not glued on the other side.
4. Use plenty of glue. It is better to have too much than not enough. A pin hole into the hole is OK. It is better to have too much than not enough.
5. Let the glue set up for 10 minutes. During the time from about 7 to 15 minutes after gluing, the excess glue that has seeped from the hole can be wiped off easily. Don't leave glue covering the hole, because it will be difficult to remove.

MAKING A HINGE SLOT
DRILL TWO 1/8" DIA. HOLES INTO THE WOOD

CUT BETWEEN THE HOLES WITH A HINGING KNIFE

USE EPOXY GLUE TO FASTEN THE HINGE TO THE SLOT

NOTE: AN ALTERNATE METHOD FOR CUTTING HINGE SLOTS IS ALSO SHOWN FOR CUTTING HINGE SLOTS

BONDING ABS
Remove all shine with 220 Grit sandpaper on the inside of the cabin to prepare the surface for glue. The mating surface for an 1/8" x 3/16" around the edge of the clear windows should also be prepared by sanding with 220. This light sanding of both ABS and clear will aid in bonding these materials. The 1/8" x 3/16" fastener to cabin should also be sanded to aid bonding to balsa fuselage. Hot Stuff is recommended for bonding ABS to balsa. Hot Stuff, M.E.K., and SIG Model Cement for bonding to balsa.

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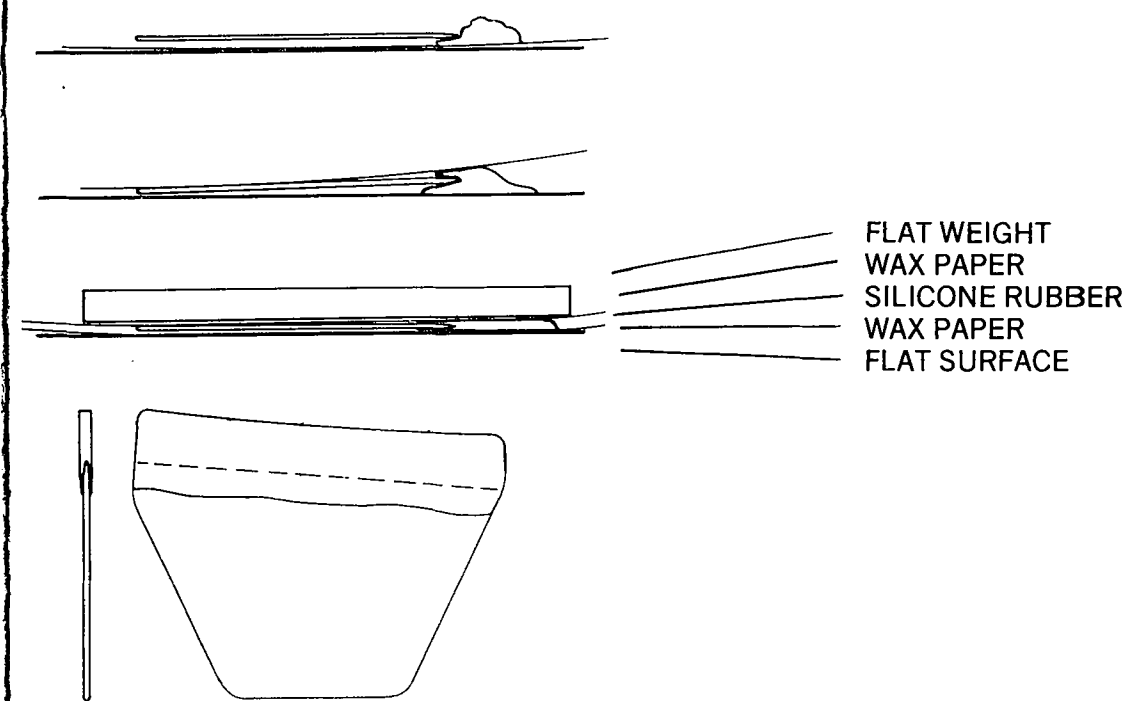
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NOTE: THE PLAN PAPER CAN SHRINK OR EXPAND WITH HUMIDITY AND TEMPERATURE CHANGES, SOMETIMES AS MUCH AS 1/4". THE ORIGINAL DRAWINGS WERE DRAWN ON STABLE MYLAR FILM AND ALL THE PART PATTERNS WERE CHECKED AGAINST THEM. THEREFORE THE PARTS SHOULD ALL FIT TO EACH OTHER WITHOUT MUCH MISMATCH. ANY SMALL VARIATION OF THE PLAN DRAWING FROM THE PART THAT MAY BE NOTICED WILL NOT CAUSE SERIOUS DIFFICULTY DURING ASSEMBLY BECAUSE THE VARIATION WILL BE SMALL IN ANY ONE AREA OF THE PLAN.

WARNING-DANGER!

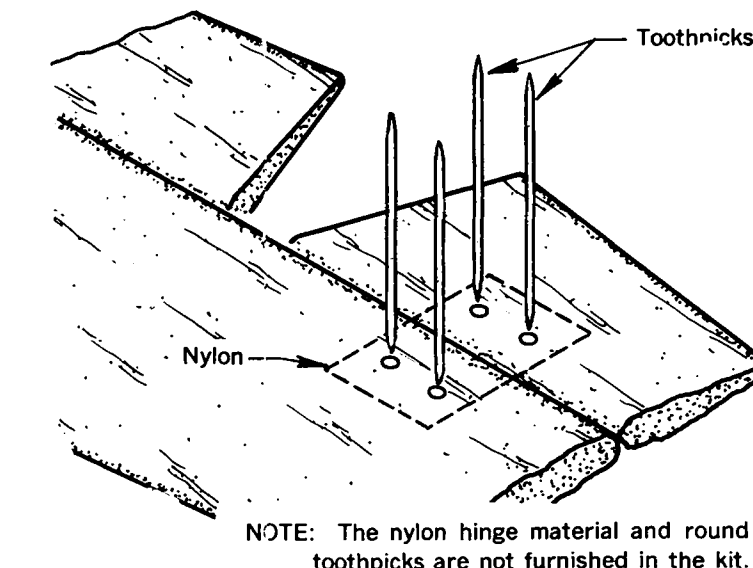
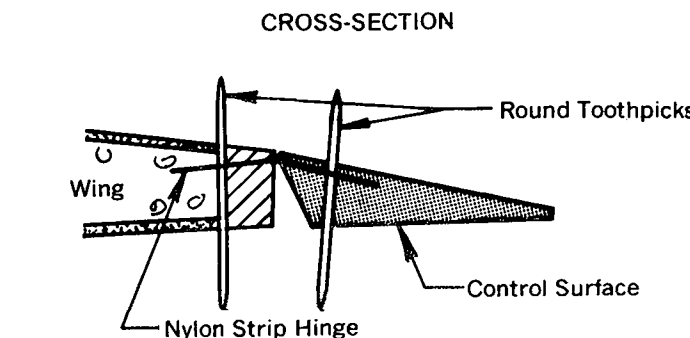
DO NOT FLY MODEL AIRPLANES NEAR ELECTRIC POWER LINES. INSTANT DEATH CAN RESULT FROM CONTACT WITH, OR FLYING TOO CLOSE TO, ELECTRIC POWER LINES.

MAKING THE LANDING GEAR DOORS



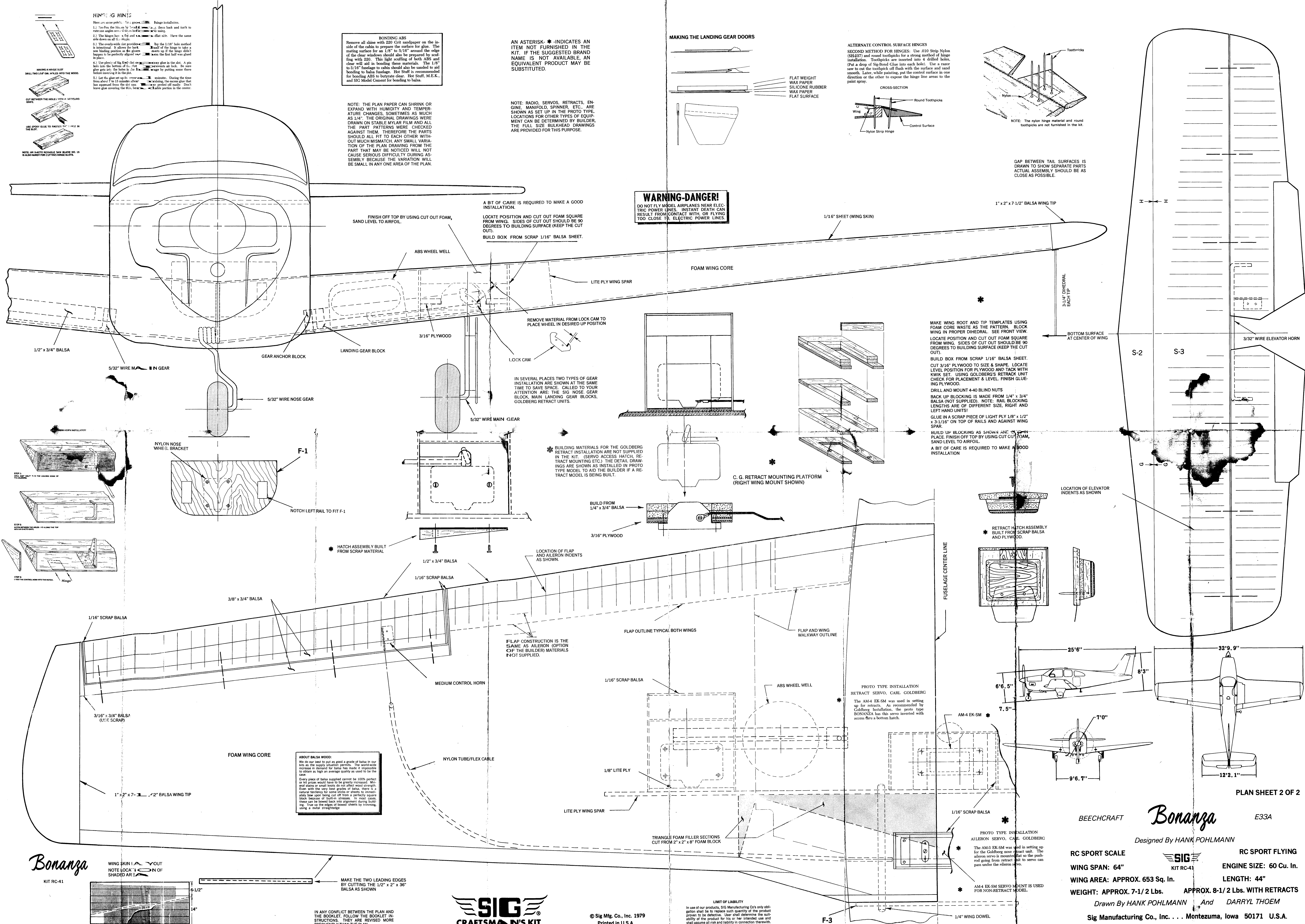
ALTERNATE CONTROL SURFACE HINGES

SECOND METHOD FOR HINGES: Use #10 Strip Nylon (SHEET) and round toothpicks for a strong method of hinge installation. Toothpicks are inserted into 4 drilled holes. (Put a drop of Sig-Bond Glue into each hole). Use a razor saw to cut the toothpick off flush with the surface and sand smooth. Later, while painting, put the control surface in one direction or the other to expose the hinge line areas to the paint spray.



NOTE: The nylon hinge material and round toothpicks are not furnished in the kit.

GAP BETWEEN TAIL SURFACES IS DRAWN TO SHOW SEPARATE PARTS. ACTUAL ASSEMBLY SHOULD BE AS CLOSE AS POSSIBLE.



MAKE WING ROOT AND TIP TEMPLATES USING FOAM CORE WASTE AS THE PATTERN. BLOCK WING IN PROPER DIHEDRAL. SEE FRONT VIEW. LOCATE POSITION AND CUT OUT FOAM SQUARE FROM WING. SIDES OF CUT OUT SHOULD BE 90 DEGREES TO BUILDING SURFACE (KEEP THE CUT OUT).

BUILD BOX FROM SCRAP 1/16" Balsa SHEET. CUT 3/16" PLYWOOD TO SIZE & SHAPE. LOCATE LEVEL POSITION FOR PLYWOOD AND TACK WITH KWIK SET. USING GOLDBERG'S RETRACT UNIT CHECK FOR PLACEMENT & LEVEL. FINISH GLUING PLYWOOD.

DRILL AND MOUNT 4-40 BLIND NUTS BACK UP BLOCKING IS MADE FROM 1/4" x 3/4" Balsa (NOT SUPPLIED). NOTE: RAIL BLOCKING LENGTHS ARE OF DIFFERENT SIZE, RIGHT AND LEFT HAND UNITS!

GLUE IN A SCRAP PIECE OF LIGHT PLY 1/8" x 1/2" x 3-1/16" ON TOP OF RAILS AND AGAINST WING SPAR.

BUILD UP BLOCKING AS SHOWN AND PLACE. FINISH OFF TOP BY USING CUT OUT FOAM, SAND LEVEL TO AIRFOIL.

A BIT OF CARE IS REQUIRED TO MAKE A GOOD INSTALLATION

RETRACT HATCH ASSEMBLY BUILT FROM SCRAP Balsa AND PLYWOOD.

PROTO TYPE INSTALLATION RETRACT SERVO, CARL GOLDBERG

The AM-4 EK-SM was used in setting up for retracts. As recommended by Goldberg installation, the proto type BONANZA has this servo inverted with access thru a bottom hatch.

PROTO TYPE INSTALLATION ALERON SERVO, CARL GOLDBERG

The AM-3 EK-SM was used in setting up for the Goldberg nose retract unit. The aleron servo is mounted so the pushrod going from retract unit to servo can pass under the aleron servo.

AM-4 EK-SM SERVO MOUNT IS USED FOR NON-RETRACT MODEL.

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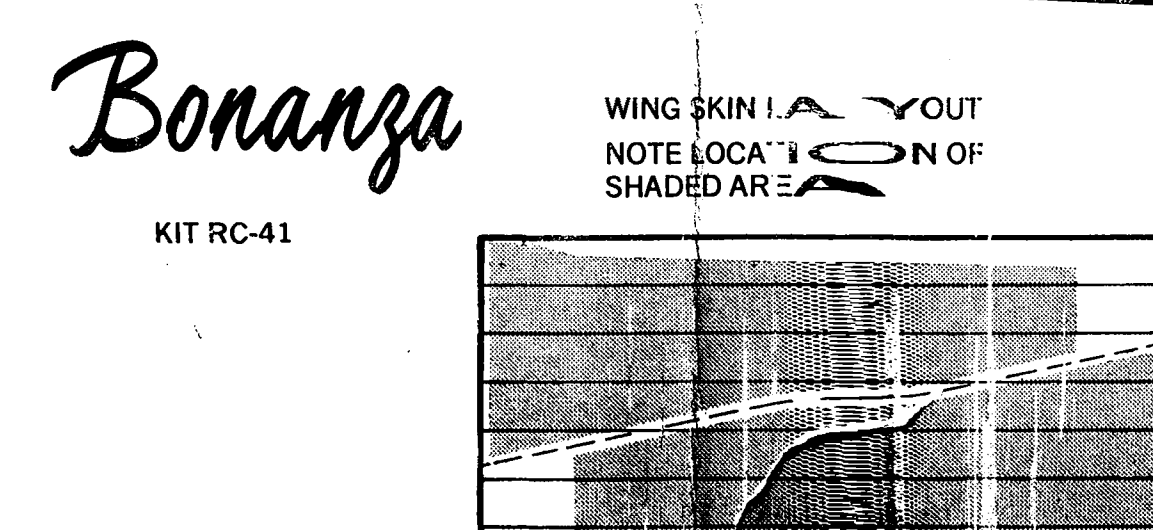
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AM-4 EK-SM SERVO MOUNT IS USED FOR NON-RETRACT MODEL.

AM-4 EK-SM SERVO MOUNT IS USED FOR NON-RETRACT MODEL.



Bonanza
KIT RC-41
WING SKIN LAYOUT
NOTE: LOCATE AND SHADE AREAS

MAKE THE TWO LEADING EDGES BY CUTTING THE 1/2" x 2" x 36" Balsa AS SHOWN

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LIMIT OF LIABILITY
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