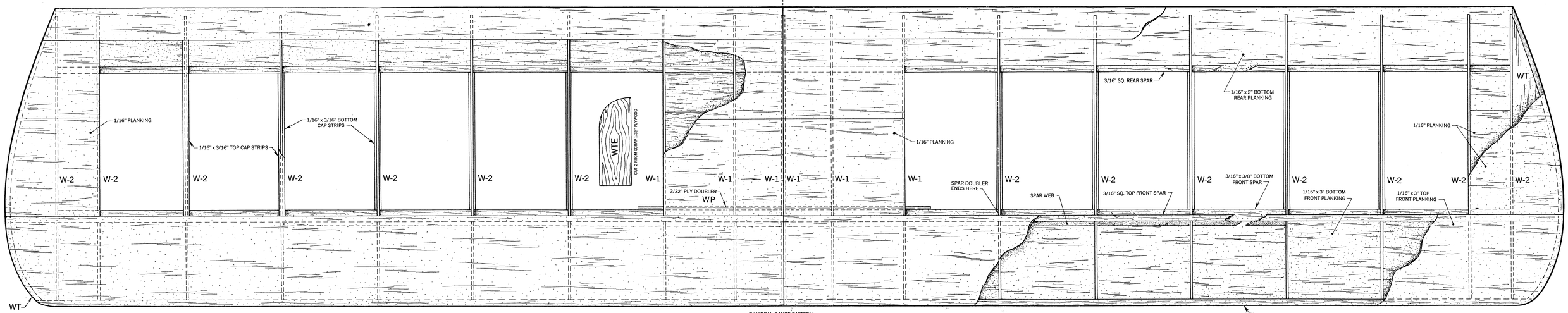
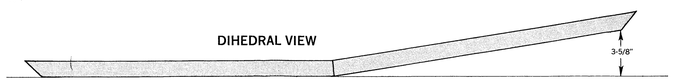
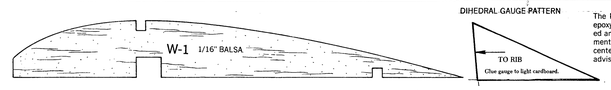


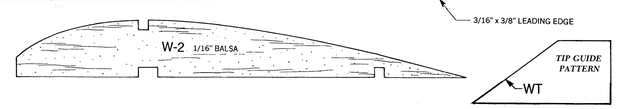
DIHEDRAL VIEW

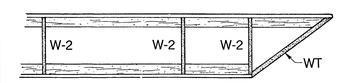


DIHEDRAL IS MEASURED FROM THE BOTTOM OF THE LAST W-3 RIB, NOT AT THE TIP

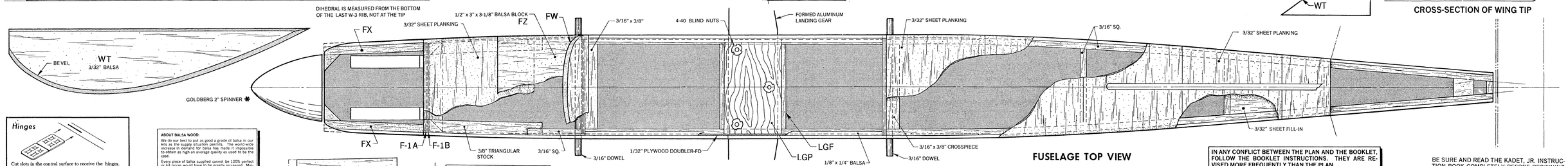


The Kadet, Jr. prototype did not use fiberglass cloth and epoxy glue coating on the center wing joint. A properly joined and silk covered wing does not need this extra reinforcement. However, for iron-on covering jobs or if you feel the center joint in your model is not perfect, then it would be advisable to add the fiberglass and epoxy.





CROSS-SECTION OF WING TIP



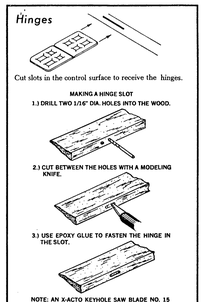
FUSELAGE TOP VIEW

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

BE SURE AND READ THE KADET, JR. INSTRUCTION BOOK COMPLETELY BEFORE BEGINNING TO BUILD, SO THAT YOU WILL HAVE A MORE COMPLETE PICTURE OF THE CONSTRUCTION STEPS REQUIRED.

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.

Hinges



Cut slots in the control surface to receive the hinges.

MAKING A HINGE SLOT

1.) DRILL TWO 1/16" DIA. HOLES INTO THE WOOD.

2.) CUT BETWEEN THE HOLES WITH A MODELING KNIFE.

3.) USE EPOXY GLUE TO FASTEN THE HINGE IN THE SLOT.

NOTE: AN X-ACTO KEYHOLE SAW BLADE NO. 15 IS ALSO HANDY FOR CUTTING HINGE SLOTS.

Here are some pointers for a good hinge installation.

1.) Pre-flex the hinges by bending them back and forth to extreme angles several times before using.

2.) The hinges have a flat and un-flat side. Have the same side down on all the hinges.

3.) The extra-wide slot provided by the 1/16" hole method is intentional. It allows the last half of the hinge to take a non-binding position as the glue sets up if the hinge didn't happen to be perfectly aligned when the first half was glued in place.

4.) Use plenty of Sig Kwik-Set epoxy glue in the slot. A pin hole into the bottom of the slot prevents air lock. Be sure glue gets into the holes in the hinge by putting some there before inserting it in the slot.

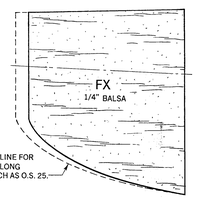
5.) Leave the thin, bendable portion in the center of the hinge completely out of the slot. The gap between the surfaces should be as small as possible without restricting the movement of the controls.

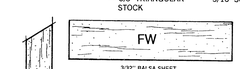
6.) Let the glue set up for several minutes. During the time from about 7 to 15 minutes after mixing, the excess glue that has squeezed from the slot can be peeled off easily. Don't leave glue covering the thin, bendable portion in the center.

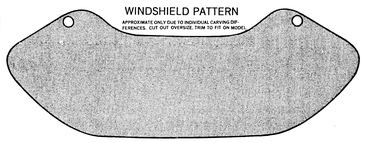
ABOUT BALSA WOOD:

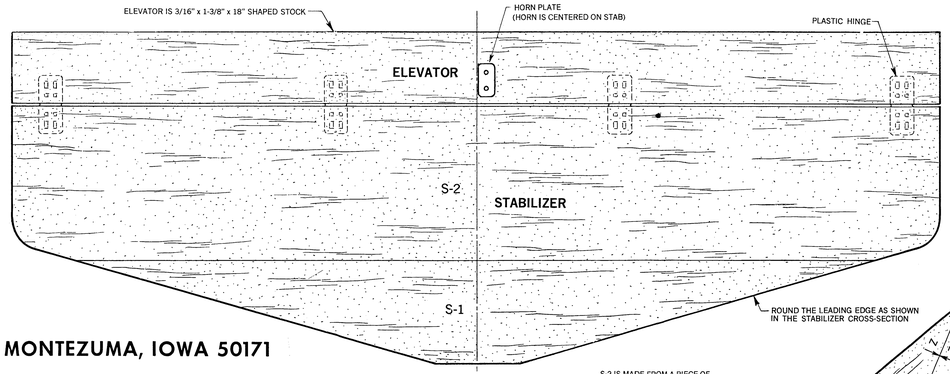
We do our best to put as good a grade of balsa in our kits as the supply situation permits. The world-wide increase in demand for balsa has made it impossible to obtain as high an average quality as used to be the case.

Every piece of balsa supplied cannot be 100% perfect or kit prices would have to be greatly increased. Minor stains 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 immediately bow upon being cut off from a perfectly square block because of built-in stresses. In most cases, these can be bowed back into alignment during building. True up the edges of bowed sheets by trimming, using a metal straightedge.

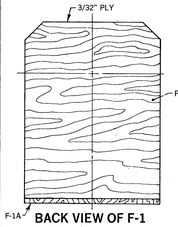








GO EASY ON PAINTING THE TAIL. AN EXTRA OUNCE HERE NEEDS A LOT MORE IN THE NOSE TO COUNTERBALANCE.



BACK VIEW OF F-1

CABIN WINDOW PATTERNS

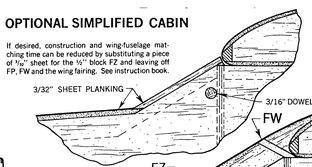
Use patterns for cutting plastic film windows or for painting. Because of individual carving differences in individual models it is not possible to provide an accurate front pattern.

OIL PROOF YOUR MODEL!

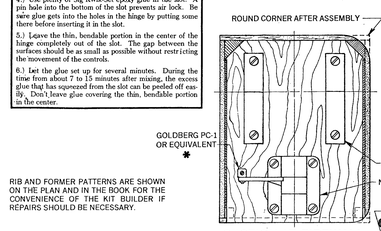
One of the most destructive things that can happen to a model is allowing engine oil to soak into bare, untreated balsa or plywood. It will cause glue joints to loosen and results in a steady increase in weight. An oil soaked model cannot be properly repaired or re-painted after a crackup, since glue 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.

OPTIONAL SIMPLIFIED CABIN

If desired, construction and wing-fuselage matching time can be reduced by substituting a piece of 1/16" sheet for the 1/2" block FZ and leaving off FP, FW and the wing fairing. See instruction book.



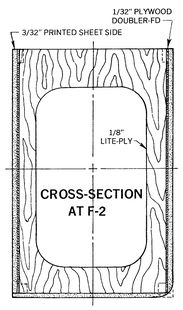
SIG MANUFACTURING CO. MONTEZUMA, IOWA 50171

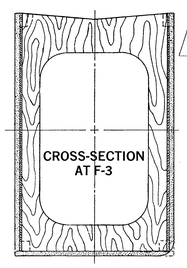


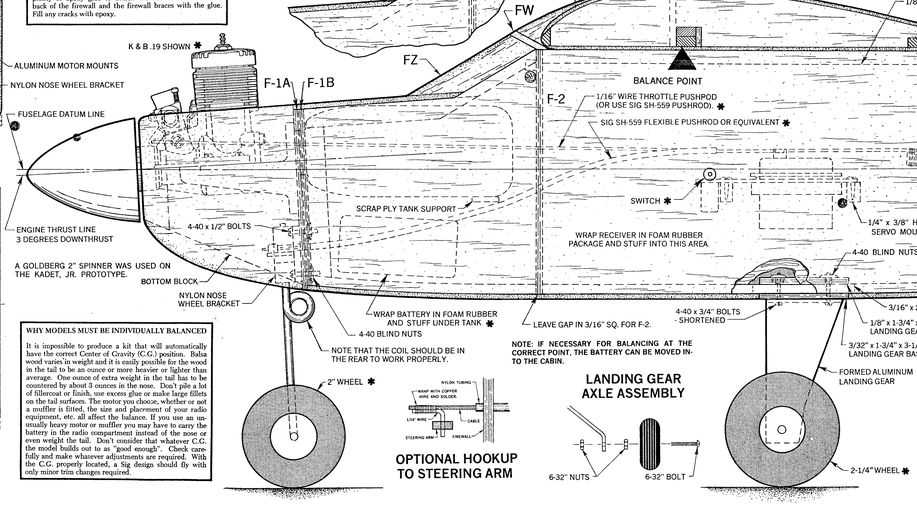
SECTION AT FIREWALL F-1

FX NOT SHOWN IN THIS VIEW

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.







NOTE: IF NECESSARY FOR BALANCING AT THE CORRECT POINT, THE BATTERY CAN BE MOVED INTO THE CABIN.

FUSELAGE SIDE VIEW

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

WHY MODELS MUST BE INDIVIDUALLY BALANCED

It is impossible to produce a kit that will automatically have the correct Center of Gravity (C.G.) position. Balsa wood varies in weight and it is easily possible for the wood in the tail to be an ounce or more heavier or lighter than average. One ounce of extra weight in the tail has to be countered by about 3 ounces in the nose. Don't pile a lot of fillercoat or finish, use excess glue or make large fillets on the tail surfaces. The motor you choose, whether or not a muffler is fitted, the size and placement of your radio equipment, etc. all affect the balance. If you use an unusually heavy motor or muffler you may have to carry the battery in the radio compartment instead of the nose or even weight the tail. Don't consider that whatever C.G. the model builds out to as "good enough". Check carefully and make whatever adjustments are required. With the C.G. properly located, a Sig design should fly with only minor trim changes required.

OPTIONAL HOOKUP TO STEERING ARM

LANDING GEAR AXLE ASSEMBLY

LIMIT OF LIABILITY

In use of our products, SIG Manufacturing Co.'s only obligation shall be to replace such quantity of the product proven to be defective. User shall determine the suitability of the product for his or her intended use and shall assume all risk and liability in connection therewith.

WARNING-DANGER!

Important: Read These Warnings:

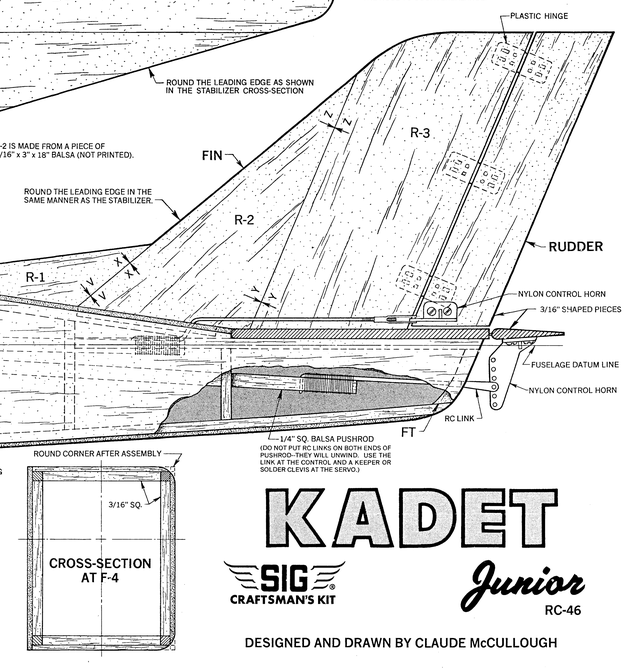
Do Not fly control line or towline models within 300 feet of electric power lines. Instant death from electrocution can result from coming near them. Direct contact is not necessary.

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 flammable 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.

S-2 IS MADE FROM A PIECE OF 3/16" x 3" x 18" BALSA (NOT PRINTED).

ROUND THE LEADING EDGE IN THE SAME MANNER AS THE STABILIZER.



KADET Junior

SIG CRAFTSMAN'S KIT

RC-46

DESIGNED AND DRAWN BY CLAUDE McCULLOUGH

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Printed in U.S.A.