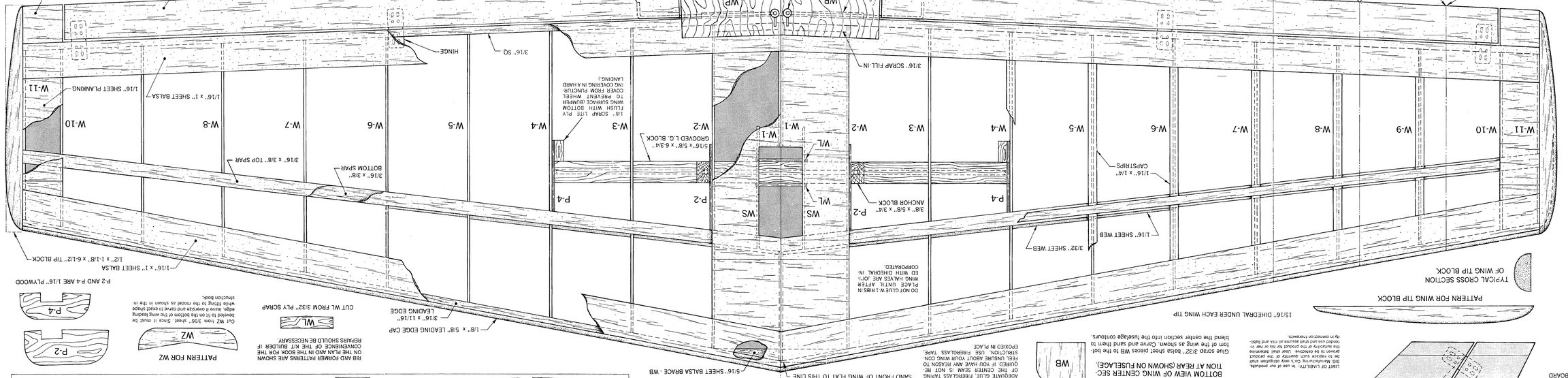
PHANTOM LINES INDICATE COLOR SCHEME
RED
WHITE
BLUE
TUBING
NYLON CONNECTOR
SQUARE OFF TRAILING EDGE WHEN FITTING WING TO FUSELAGE
FORMED ALLERON HORN
1/4" x 1" SHAPED ALLERON STOCK
SEE DETAIL "T", ELSEWHERE ON DRAWING
HINGE
3/16" SQ.
3/16" SCRAP FILL-IN
1/8" SCRAP LITE PLY WING SURFACE (BUMPER FLUSH WITH BOTTOM TO PREVENT WHEEL COVER FROM MALFUNCTIONING COVERING IN A HARD LANDING.)
5/16" x 5/8" x 6-3/4" GROOVED L.G. BLOCK
3/8" x 5/8" x 3/4" ANCHOR BLOCK
1/16" x 1/4" CAPSTRIPS
1/16" SHEET WEB
3/32" SHEET WEB
1/16" SHEET PLANKING
1/16" x 1" SHEET BALSA
3/16" x 3/8" TOP SPAR
3/16" x 3/8" BOTTOM SPAR
1/2" x 1-1/8" x 6-1/2" TIP BLOCK
1/16" x 1" SHEET BALSA
1/8" x 5/8" LEADING EDGE CAP
3/16" x 11/16" LEADING EDGE
W-1
W-2
W-3
W-4
W-5
W-6
W-7
W-8
W-9
W-10
W-11
WL
WS
WP
P-2
P-4
DO NOT GLUE W-1 RIBS IN PLACE UNTIL AFTER WING HALVES ARE JOINED WITH DIHEDRAL. IN-CORRECTLY.
15/16" DIHEDRAL UNDER EACH WING TIP
PATTERN FOR WING TIP BLOCK
TYPICAL CROSS SECTION OF WING TIP BLOCK.
KEY TO PLYWOOD PARTS
F-1A
F-1B
F-2
F-3
F-4
WP
P-2
P-4
P-2 AND P-4 ARE 1/16" PLYWOOD
P-4
P-2
CUT WL FROM 3/32" PLY SCRAP
WL
PATTERN FOR WZ
WZ
CUT WZ from 3/16" sheet. Since it must be beveled to fit on the bottom of the wing leading edge, leave it oversize and carve to exact shape while fitting to the model as shown in the in-struction book.
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.
5/16" SHEET BALSA BRACE - WB
SAND FRONT OF WING FLAT TO THIS LINE
NOTE: IF THE WING HALVES ARE JOINED WITH GOOD WORKMANSHIP AND ACCURATE GLUE, FIBERGLASS TAPING OVER THE CENTER SEAM IS NOT REQUIRED. IF YOU HAVE ANY REASON TO FEEL UNSURE ABOUT YOUR WING CONSTRUCTION, USE FIBERGLASS TAPE, EPOXIED IN PLACE.
WING CENTER SECTION AFTER FITTING TO FUSELAGE
TOP VIEW
1/4" WING DOWEL
WS RIBS ARE ON SHEET 9
WS
BOTTOM VIEW OF WING CENTER SECTION AT REAR (SHOWN ON FUSELAGE).
WB
FUSELAGE
WING BOLT HOLE
Glue scrap 3/32" balsa sheet pieces WB to the bottom of the wing as shown. Carve and sand them to blend the center section into the fuselage contours.
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.
GLUE GAUGE TO LIGHT CARDBOARD
DIHEDRAL GAUGE
TO WING CENTER
SIG
SIG KOBRA
F-16
WHITE
BLUE
RED
X
Z
RIB SHEET NO. 7
W-4
W-6
W-3
W-9
RIB SHEET NO. 6
W-2
W-10
W-5
W-7
RIB SHEET NO. 8
W-1
W-11
W-8
In designing the Kobra it was discovered that standard 3/16" sq. sticks were not quite large enough for the wing trailing edge. We cut special 13/64" oversize sticks for the kit but refer to them as 3/16" sq. on the plan and in the book, since the appearance is about the same as a stock 3/16" piece of wood.
ALUMINUM ENGINE MOUNT
FX
F-1A
F-1B
MOLDED CLEAR PLASTIC CANOPY
CARVE COWL TO SHAPE AFTER ASSEMBLY OF FUSELAGE
3/32" PRINTED SHEET SIDE
FORMED PLASTIC FUSELAGE TOP
3/32" SHEET TOP PLANKING
1/2" x 5/8" x 6" BALSA BLOCK FILLET
1/4" x 1 1/16" T.E. STOCK
SAND THE FRONT OF THE 1/4" x 1 1/16" T.E. STOCK SLIGHTLY TO FIT ON THE WING SYMMETRICALLY.
DETAIL "T"
RIB 11
F-2
F-3
F-4
3/32" PLY
F-2S
3/4" TRIANGULAR STOCK
3/4" TRIANGULAR STOCK FIREWALL BRACE
1/32" PLYWOOD FUSELAGE DOUBLER - FD
3/32" SQ. GLUING RAIL
3/32" PRINTED BALSA SIDE
1/32" PLY DOUBLER-FD
1/4" TRIANGULAR STOCK
FIN
RUDDER
FOR T-38 STYLE FIN, CUT OUT "R" PARTS WITH SOLID OUTLINE.
FOR F-16 STYLE FIN, CUT OUT "R-A PARTS WITH DASHED OUTLINE
3/16" x 3/8" BALSA
HINGE
DOWEL HOLE REINFORCEMENT (CUT FROM SCRAP PLYWOOD)
3/32" BALSA SHEETING
CROSS-SECTION AT F-1
CROSS-SECTION AT F-2
3/32" PLYWOOD
F-2S
GOLDBERG PC-1 OR EQUIVALENT
FX
1/4" SHEET BALSA
NOTES ON SERVO INSTALLATION
A typical servo installation is shown. The elevator and rudder servos are placed toward the rear so as to allow space between them and F-3 for placing either the battery or the receiver, depending on the balance point positioning requirements of your particular model. No need was seen in the prototypes for having the elevator and rudder servos located any farther forward because the nose length of the model usually insures against any tail heavy problems with the Kobra. The battery was mounted over the wing on both prototypes. However, the battery may be located in the nose under the tank if this is required for balancing and/or the elevator and rudder servos located farther forward, against the back of F-3. The prototypes used plastic servo mounts held to the sides with 1/16" double-sided foam servo tape. (Sig SH-119). It is possible also to mount the servos directly to the wall with servo tape (1/8" thickness is also available, SH-120)
1/16" FOAM SERVO TAPE
1/4" TRIANGULAR STOCK
3/8" x 1-1/2" x 3/4" WING BOLT BLOCK
1/32 PLYWOOD DOUBLER - FD
BOTTOM VIEW OF FUSELAGE AT WING OPENING
CONTROL HORN ASSEMBLY VIEW
#2 SCREWS
NYLON HORN PLATE
NYLON CONTROL HORN
IF RC LINKS FIT TOO TIGHTLY IN THE NYLON CONTROL HORN HOLES, ENLARGE THE HOLES WITH A NO. 51 SIZE DRILL BIT.
PHANTOM LINES INDICATE COLOR SCHEME
BLUE
WHITE
RED
3/16" x 3/8" BALSA
S-1
S-2
G
H
CANOPY
FORMED PLASTIC FUSELAGE TOP
ITEMS MARKED WITH AN ASTERISK ARE NOT FURNISHED IN KIT
6 OZ. SULLIVAN RST TANK
3/4" TRIANGULAR STOCK
1/4" TRIANGULAR STOCK
3/16" SQ.
3/32" BALSA SHEETING
3/32" SQ. GLUING RAIL
3/32" BALSA BOTTOM SHEETING
1/4" SQ. BALSA PUSHRODS
2 1/4" SPINNER
1/2" x 2-3/16" x 3-1/2" COWL BOTTOM BLOCK
1/8" FORMED NOSE GEAR
5/16" x 3" x 4 1/2" BOTTOM BLOCK
1/4" WING DOWEL
1/32" PLY DOUBLER-FD
10-32 NYLON WING BOLT
1/4" TRIANGULAR STOCK
.030 PLASTIC SHEET WHEEL COVER
WZ
WX
WP
BALANCE
2" WHEEL
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 refinished after a crash-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, where oil is most likely to collect, brush on fuel proof and thin down 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.
KOBRA SIGRC53
NOTE: The wing cross-section shown on the fuselage side view is not exactly at a rib position but is at the point the fuselage side contacts the wing. The line just below this cross-section is the center of the wing with dihedral included.
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ROUND CORNERS AFTER ASSEMBLY
CROSS-SECTION AT F-3
1/8" LITE-PLY
BLUE
CELASTIC
WHEEL COVER
2" WHEELS
CUT WHEEL COVER FROM .030 ABS SHEET PLASTIC. GLUE TO L.G. LEG WITH CELASTIC DIPPED IN ACETONE OR DOPE THINNER.
WHEEL COVER PATTERN
ROUND CORNERS AFTER ASSEMBLY
CROSS-SECTION AT F-4
1/8" LITE-PLY
3/16" SQ.
TYPICAL REAR FUSELAGE CROSS SECTION (AT "Y")
FT
XM
WX
NOTE: Because of its angled position on the bottom of the wing, WX is shown as an approximate pattern only. Cut apart the block on the dotted lines and carve WX to shape while fitting it in place on the wing. Refer to the photos in the instruction books for a better idea of placement and shape of WX. FT is an exact pattern and they can be cut directly from the block. Use the top view pattern of FT shown here to complete the rough shape, then carve to completion as pictured in the instruction book.
LAYOUT OF 1/2" x 1" x 9" BALSA BLOCK
SIDE VIEW OF FT - TAIL FILLET BLOCK
(Shown upside down to relate better to block layout diagram.)
TOP VIEW OF FT - TAIL FILLET BLOCK
USE WX PIECES OF THE BLOCK AT FULL 1/2" THICKNESS
TYPICAL CROSS SECTION OF FT
KOBRA
A SPORT PATTERN MODEL FOR .19 TO .35 ENGINES
Designed and Drawn by Claude McCullough
H.E