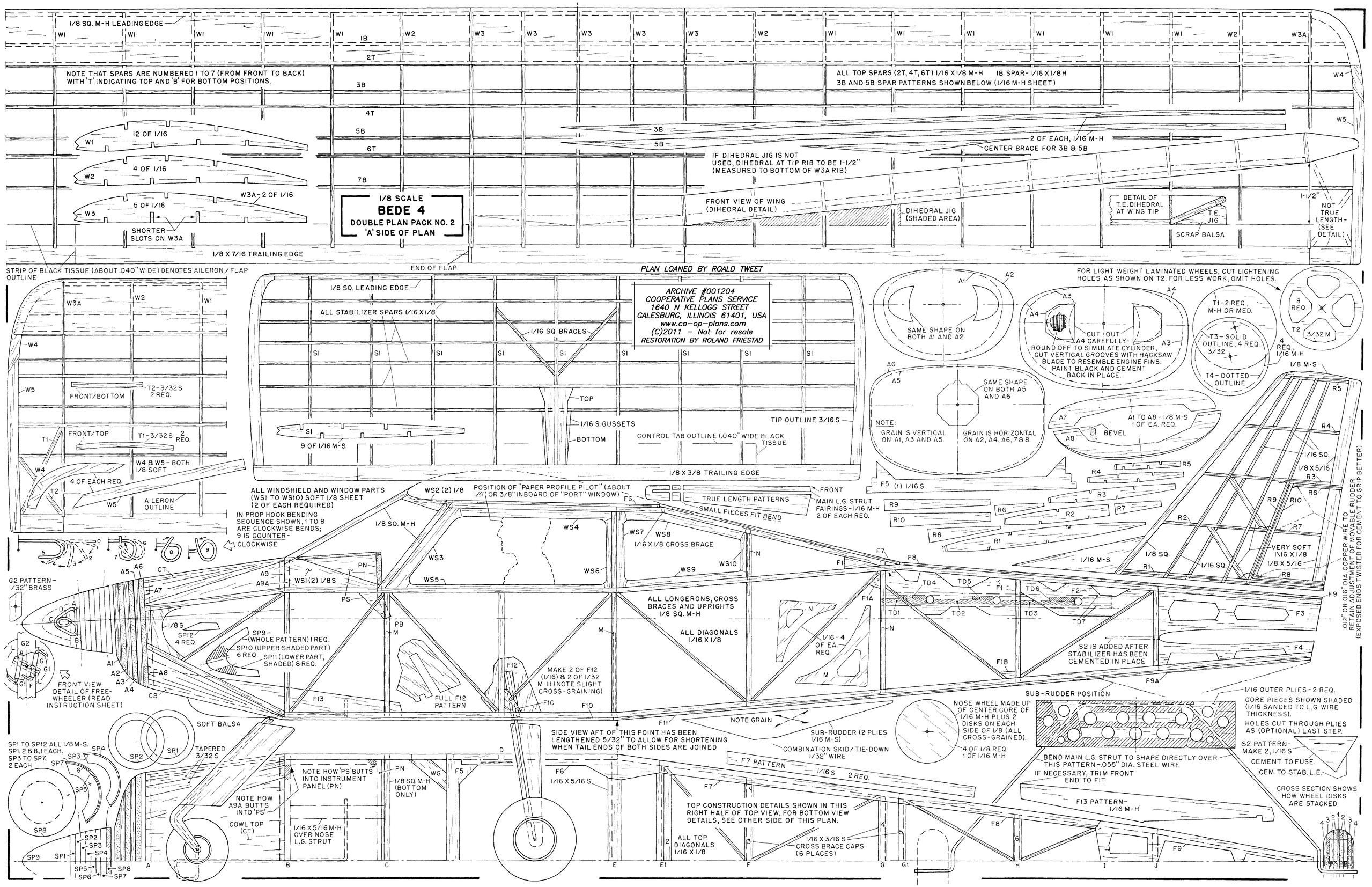
1/8 SQ. M-H LEADING EDGE
W1 W1 W1 W1 W1 1B W2 W3 W3 W3 W3 W3 W2 W1 W1 W1 W1 W1 W1 W2 W3A
2T
NOTE THAT SPARS ARE NUMBERED 1 TO 7 (FROM FRONT TO BACK) WITH 'T' INDICATING TOP AND 'B' FOR BOTTOM POSITIONS.
ALL TOP SPARS (2T, 4T, 6T) 1/16 X 1/8 M-H 1B SPAR-1/16 X 1/8 H
3B AND 5B SPAR PATTERNS SHOWN BELOW (1/16 M-H SHEET)
W4
3B
4T
5B
6T
7B
W5
12 OF 1/16
W1
4 OF 1/16
W2
5 OF 1/16
W3
W3A-2 OF 1/16
SHORTER SLOTS ON W3A
1/8 SCALE
BEDE 4
DOUBLE PLAN PACK NO. 2
'A' SIDE OF PLAN
3B
5B
2 OF EACH, 1/16 M-H
CENTER BRACE FOR 3B & 5B
IF DIHEDRAL JIG IS NOT USED, DIHEDRAL AT TIP RIB TO BE 1-1/2" (MEASURED TO BOTTOM OF W3A RIB)
FRONT VIEW OF WING (DIHEDRAL DETAIL)
DIHEDRAL JIG (SHADED AREA)
DETAIL OF T.E. DIHEDRAL AT WING TIP
T.E. JIG
SCRAP BALSA
1-1/2"
NOT TRUE LENGTH-(SEE DETAIL)
1/8 X 7/16 TRAILING EDGE
STRIP OF BLACK TISSUE (ABOUT .040" WIDE) DENOTES AILERON / FLAP OUTLINE
END OF FLAP
PLAN LOANED BY ROALD TWEET
ARCHIVE #001204
COOPERATIVE PLANS SERVICE
1640 N KELLOGG STREET
GALESBURG, ILLINOIS 61401, USA
www.co-op-plans.com
(C)2011 – Not for resale
RESTORATION BY ROLAND FRIESTAD
W3A W2 W1
W4
W5
FRONT/BOTTOM
T2-3/32S 2 REQ.
T1
FRONT/TOP
T1-3/32S 2 REQ.
W4 & W5-BOTH 1/8 SOFT
W4
T2
4 OF EACH REQ.
W5
AILERON OUTLINE
1/8 SQ. LEADING EDGE
ALL STABILIZER SPARS 1/16 X 1/8
1/16 SQ. BRACES
S1 S1 S1 S1 S1 S1 S1 S1 S1
TOP
1/16 S GUSSETS
BOTTOM
S1
9 OF 1/16 M-S
TIP OUTLINE 3/16 S
CONTROL TAB OUTLINE (.040" WIDE BLACK TISSUE
1/8 X 3/8 TRAILING EDGE
A1 A2
SAME SHAPE ON BOTH A1 AND A2
FOR LIGHT WEIGHT LAMINATED WHEELS, CUT LIGHTENING HOLES AS SHOWN ON T2. FOR LESS WORK, OMIT HOLES.
A3 A4
A4
CUT OUT A4 CAREFULLY-ROUND OFF TO SIMULATE CYLINDER, CUT VERTICAL GROOVES WITH HACKSAW BLADE TO RESEMBLE ENGINE FINS. PAINT BLACK AND CEMENT BACK IN PLACE.
A3
T1-2 REQ., M-H OR MED.
T3-SOLID OUTLINE, 4 REQ. 3/32
T4-DOTTED OUTLINE
8 REQ.
T2
3/32 M
4 REQ., 1/16 M-H
1/8 M-S
A6 A5
SAME SHAPE ON BOTH A5 AND A6
NOTE:
GRAIN IS VERTICAL ON A1, A3 AND A5.
GRAIN IS HORIZONTAL ON A2, A4, A6, 7 & 8.
A7
A1 TO A8-1/8 M-S 1 OF EA. REQ.
A8
BEVEL
R5
R4
1/16 SQ.
1/8 X 5/16
R3
R6
R9
R10
R7
R2
R1
R8
F5 (1) 1/16 S
R4
R5
R3
R6
R2
R7
R1
R8
R9
R10
1/16 M-S
1/8 SQ.
1/16 SQ.
VERY SOFT 1/16 X 1/8
1/8 X 5/16
.012" OR .016" DIA. COPPER WIRE TO RETAIN ADJUSTMENT OF MOVABLE RUDDER (EXPOSED ENDS TWISTED FOR CEMENT TO GRIP BETTER)
ALL WINDSHIELD AND WINDOW PARTS (WS1 TO WS10) SOFT 1/8 SHEET (2 OF EACH REQUIRED)
IN PROP HOOK BENDING SEQUENCE SHOWN, 1 TO 8 ARE CLOCKWISE BENDS; 9 IS COUNTER-CLOCKWISE
WS2 (2) 1/8
POSITION OF "PAPER PROFILE PILOT" (ABOUT 1/4" OR 3/8" INBOARD OF "PORT" WINDOW)
F6
TRUE LENGTH PATTERNS
SMALL PIECES FIT BEND
FRONT
MAIN L.G. STRUT FAIRINGS-1/16 M-H 2 OF EACH REQ.
1/8 SQ. M-H
WS4
WS7 WS8
1/16 X 1/8 CROSS BRACE
WS3
WS5
WS6
WS9
WS10
N
F1
F7
F8
G2 PATTERN-1/32" BRASS
A5 A6
CT
A9
A9A
WS1 (2) 1/8 S
PN
A7
PS
PB
M
1/8 S
SP12 4 REQ.
SP9-(WHOLE PATTERN) 1 REQ.
SP10 (UPPER SHADED PART) 6 REQ.
SP11 (LOWER PART, SHADED) 8 REQ.
A1
A2
A3
A4
A8
CB
FRONT VIEW DETAIL OF FREE-WHEELER (READ INSTRUCTION SHEET)
F13
FULL F12 PATTERN
F12
MAKE 2 OF F12 (1/16) & 2 OF 1/32 M-H (NOTE SLIGHT CROSS-GRAINING)
F1C
F10
ALL LONGERONS, CROSS BRACES AND UPRIGHTS 1/8 SQ. M-H
ALL DIAGONALS 1/16 X 1/8
N
1/16-4 OF EA. REQ.
M
F1A
F1B
TD4 TD5 TD6
TD1 TD2 TD3 TD7
F1
F2
F3
F4
F9
F9A
S2 IS ADDED AFTER STABILIZER HAS BEEN CEMENTED IN PLACE
SUB-RUDDER POSITION
1/16 OUTER PLIES-2 REQ.
CORE PIECES SHOWN SHADED (1/16 SANDED TO L.G. WIRE THICKNESS).
HOLES CUT THROUGH PLIES AS (OPTIONAL) LAST STEP.
NOSE WHEEL MADE UP OF CENTER CORE OF 1/16 M-H PLUS 2 DISKS ON EACH SIDE OF 1/8 (ALL CROSS-GRAINED).
4 OF 1/8 REQ. 1 OF 1/16 M-H
NOTE GRAIN
SUB-RUDDER (2 PLIES 1/16 M-S)
COMBINATION SKID/TIE-DOWN 1/32" WIRE
SIDE VIEW AFT OF THIS POINT HAS BEEN LENGTHENED 5/32" TO ALLOW FOR SHORTENING WHEN TAIL ENDS OF BOTH SIDES ARE JOINED
BEND MAIN L.G. STRUT TO SHAPE DIRECTLY OVER THIS PATTERN-.055" DIA. STEEL WIRE
IF NECESSARY, TRIM FRONT END TO FIT
S2 PATTERN-MAKE 2, 1/16 S
CEMENT TO FUSE.
CEM. TO STAB. L.E.
CROSS SECTION SHOWS HOW WHEEL DISKS ARE STACKED
4 3 2 1 2 3 4
SP1 TO SP12 ALL 1/8 M-S. SP1, 2 & 8, 1 EACH. SP3 TO SP7, 2 EACH
SP4 SP3 SP7 SP2 SP1 SP5 SP8 SP9
SOFT BALSA
TAPERED 3/32 S
NOTE HOW 'PS' BUTTS INTO INSTRUMENT PANEL (PN)
PN
WG
1/8 SQ. M-H (BOTTOM ONLY)
F5
D
NOTE HOW A9A BUTTS INTO 'PS'
COWL TOP (CT)
1/16 X 5/16 M-H OVER NOSE L.G. STRUT
F6
1/16 X 5/16 S
F7
F7 PATTERN 1/16 S 2 REQ.
TOP CONSTRUCTION DETAILS SHOWN IN THIS RIGHT HALF OF TOP VIEW. FOR BOTTOM VIEW DETAILS, SEE OTHER SIDE OF THIS PLAN.
ALL TOP DIAGONALS 1/16 X 1/8
1/16 X 3/16 S CROSS BRACE CAPS (6 PLACES)
F13 PATTERN-1/16 M-H
F8
F9
A B C E E1 F G G1 H I J