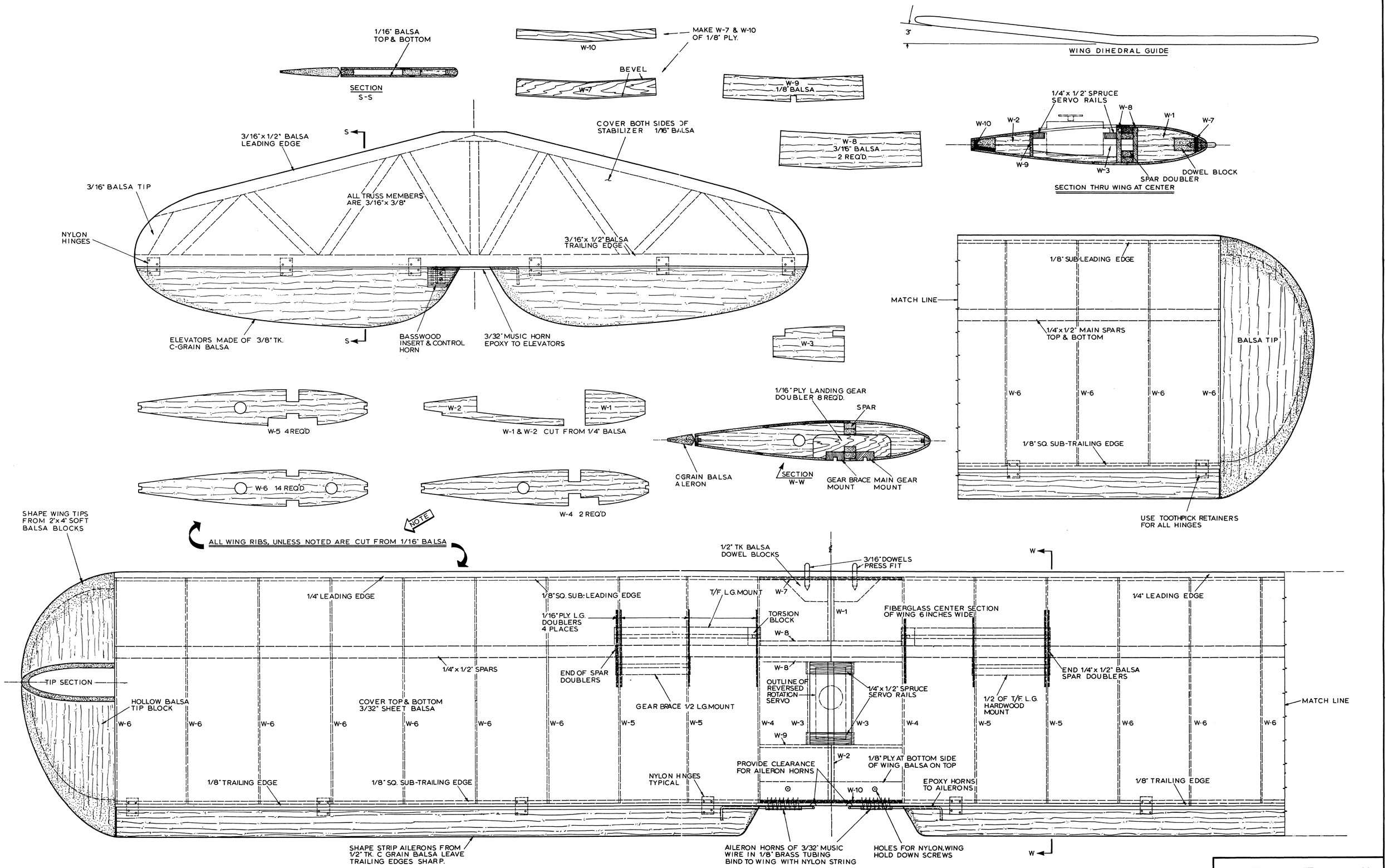
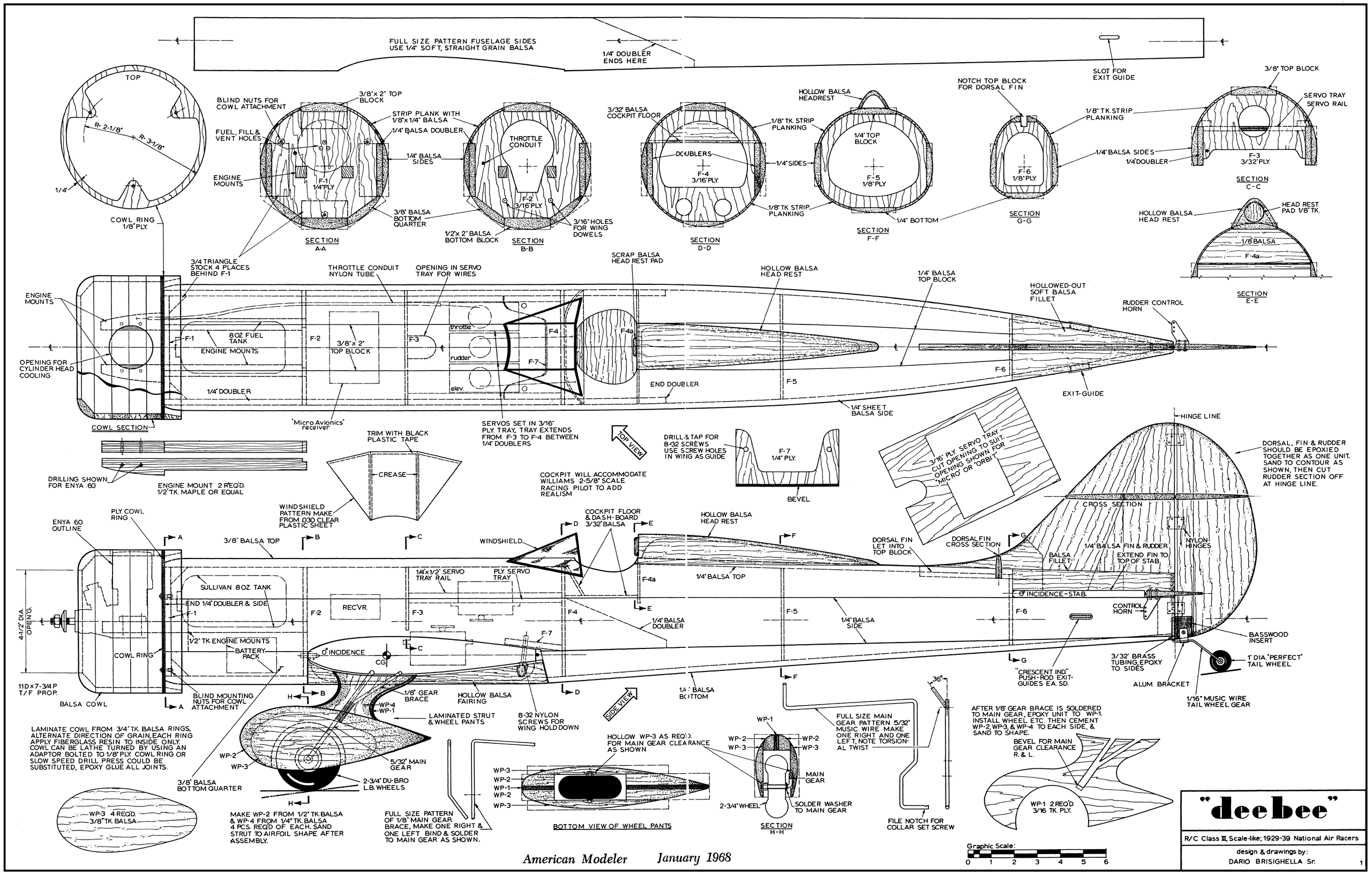

1/16" BALSA TOP & BOTTOM
SECTION S-S
W-10
MAKE W-7 & W-10 OF 1/8" PLY.
BEVEL
W-7
W-9 1/8" BALSA
3"
WING DIHEDRAL GUIDE
1/4" x 1/2" SPRUCE SERVO RAILS
W-10
W-2
W-8
W-1
W-7
W-9
W-3
SPAR DOUBLER
DOWEL BLOCK
SECTION THRU WING AT CENTER
3/16" x 1/2" BALSA LEADING EDGE
S
COVER BOTH SIDES OF STABILIZER 1/16" BALSA
W-8 3/16" BALSA 2 REQ'D.
3/16" BALSA TIP
ALL TRUSS MEMBERS ARE 3/16" x 3/8"
NYLON HINGES
3/16" x 1/2" BALSA TRAILING EDGE
ELEVATORS MADE OF 3/8" TK. C-GRAIN BALSA
BASSWOOD INSERT & CONTROL HORN
3/32" MUSIC HORN EPOXY TO ELEVATORS
W-3
1/8" SUB-LEADING EDGE
MATCH LINE
1/4" x 1/2" MAIN SPARS TOP & BOTTOM
BALSA TIP
W-6
W-6
W-6
W-6
1/8" SQ. SUB-TRAILING EDGE
USE TOOTHPICK RETAINERS FOR ALL HINGES
W-5 4 REQ'D
W-2
W-1
W-1 & W-2 CUT FROM 1/4" BALSA
1/16" PLY LANDING GEAR DOUBLER 8 REQ'D.
SPAR
C-GRAIN BALSA AILERON
SECTION W-W
GEAR BRACE MOUNT
MAIN GEAR MOUNT
W-6 14 REQ'D
W-4 2 REQ'D
SHAPE WING TIPS FROM 2"x4" SOFT BALSA BLOCKS
NOTE
ALL WING RIBS, UNLESS NOTED ARE CUT FROM 1/16" BALSA
1/2" TK BALSA DOWEL BLOCKS
3/16" DOWELS PRESS FIT
W
1/4" LEADING EDGE
1/8" SQ. SUB-LEADING EDGE
T/F L.G. MOUNT
W-7
W-1
FIBERGLASS CENTER SECTION OF WING 6 INCHES WIDE
1/4" LEADING EDGE
1/16" PLY L.G. DOUBLERS 4 PLACES
TORSION BLOCK
W-8
1/4" x 1/2" SPARS
END OF SPAR DOUBLERS
W-8
END 1/4" x 1/2" BALSA SPAR DOUBLERS
TIP SECTION
OUTLINE OF REVERSED ROTATION SERVO
1/4" x 1/2" SPRUCE SERVO RAILS
1/2 OF T/F L.G. HARDWOOD MOUNT
HOLLOW BALSA TIP BLOCK
COVER TOP & BOTTOM 3/32" SHEET BALSA
GEAR BRACE 1/2 L.G. MOUNT
MATCH LINE
W-6
W-6
W-6
W-6
W-6
W-6
W-6
W-5
W-5
W-4
W-3
W-3
W-4
W-5
W-5
W-6
W-6
W-6
W-9
W-2
1/8" PLY AT BOTTOM SIDE OF WING, BALSA ON TOP
PROVIDE CLEARANCE FOR AILERON HORNS
NYLON HINGES TYPICAL
W-10
EPOXY HORNS TO AILERONS
1/8" TRAILING EDGE
1/8" SQ. SUB-TRAILING EDGE
1/8" TRAILING EDGE
SHAPE STRIP AILERONS FROM 1/2" TK. C GRAIN BALSA LEAVE TRAILING EDGES SHARP.
AILERON HORNS OF 3/32" MUSIC WIRE IN 1/8" BRASS TUBING BIND TO WING WITH NYLON STRING
HOLES FOR NYLON WING HOLD DOWN SCREWS
W
Graphic Scale
0 1 2 3 4 5 6
"dee bee"
BY DARIO BRISIGHELLA Sr.


FULL SIZE PATTERN FUSELAGE SIDES
USE 1/4" SOFT, STRAIGHT GRAIN BALSA
1/4" DOUBLER ENDS HERE
SLOT FOR EXIT GUIDE
TOP
R- 2-1/8"
R- 3-1/8"
1/4"
COWL RING 1/8" PLY.
BLIND NUTS FOR COWL ATTACHMENT
3/8"x 2" TOP BLOCK
FUEL, FILL & VENT HOLES
STRIP PLANK WITH 1/8"x1/4" BALSA
1/4" BALSA DOUBLER
1/4" BALSA SIDES
ENGINE MOUNTS
F-1 1/4" PLY
3/8" BALSA BOTTOM QUARTER
SECTION A-A
THROTTLE CONDUIT
F-2 3/16" PLY.
1/2"x 2" BALSA BOTTOM BLOCK
3/16" HOLES FOR WING DOWELS
SECTION B-B
3/32" BALSA COCKPIT FLOOR
DOUBLERS
F-4 3/16" PLY.
1/8" TK. STRIP PLANKING
SECTION D-D
HOLLOW BALSA HEADREST
1/4" TOP BLOCK
1/4" SIDES
F-5 1/8" PLY
1/4" BOTTOM
SECTION F-F
NOTCH TOP BLOCK FOR DORSAL FIN
F-6 1/8" PLY.
SECTION G-G
3/8" TOP BLOCK
SERVO TRAY
SERVO RAIL
1/8" TK. STRIP PLANKING
1/4" BALSA SIDES
1/4" DOUBLER
F-3 3/32" PLY.
SECTION C-C
HOLLOW BALSA HEAD REST
HEAD REST PAD 1/8" TK.
1/8" BALSA
F-4a
SECTION E-E
3/4 TRIANGLE STOCK 4 PLACES BEHIND F-1
THROTTLE CONDUIT NYLON TUBE
OPENING IN SERVO TRAY FOR WIRES
SCRAP BALSA HEAD REST PAD
HOLLOW BALSA HEAD REST
1/4" BALSA TOP BLOCK
HOLLOWED-OUT SOFT BALSA FILLET
RUDDER CONTROL HORN
ENGINE MOUNTS
OPENING FOR CYLINDER HEAD COOLING
F-1
8 OZ. FUEL TANK
ENGINE MOUNTS
F-2
3/8"x 2" TOP BLOCK
F-3
throttle
rudder
elev.
F-4
F-7
F-4a
END DOUBLER
F-5
F-6
EXIT-GUIDE
1/4" DOUBLER
1/4" SHEET BALSA SIDE
COWL SECTION
"Micro Avionics" receiver
SERVOS SET IN 3/16" PLY. TRAY, TRAY EXTENDS FROM F-3 TO F-4 BETWEEN 1/4" DOUBLERS
TOP VIEW
DRILL & TAP FOR 8-32 SCREWS USE SCREW HOLES IN WING AS GUIDE
F-7 1/4" PLY.
BEVEL
3/16" PLY. SERVO TRAY. CUT OPENING TO SUIT. OPENING SHOWN FOR "MICRO" OR "ORBIT"
HINGE LINE
DORSAL, FIN & RUDDER SHOULD BE EPOXIED TOGETHER AS ONE UNIT. SAND TO CONTOUR AS SHOWN, THEN CUT RUDDER SECTION OFF AT HINGE LINE.
DRILLING SHOWN FOR ENYA .60
ENGINE MOUNT 2 REQ'D. 1/2" TK. MAPLE OR EQUAL
TRIM WITH BLACK PLASTIC TAPE
CREASE
WINDSHIELD PATTERN MAKE FROM .030 CLEAR PLASTIC SHEET
COCKPIT WILL ACCOMMODATE WILLIAMS 2-5/8" SCALE RACING PILOT TO ADD REALISM
CROSS SECTION
ENYA .60 OUTLINE
PLY COWL RING
3/8" BALSA TOP
WINDSHIELD
COCKPIT FLOOR & DASH-BOARD 3/32" BALSA
HOLLOW BALSA HEAD REST
DORSAL FIN LET INTO TOP BLOCK
DORSAL FIN CROSS SECTION
BALSA FILLET
1/4" BALSA FIN & RUDDER
EXTEND FIN TO TOP OF STAB.
NYLON HINGES
1/4"x1/2" SERVO TRAY RAIL
PLY. SERVO TRAY
F-4a
1/4" BALSA TOP
0° INCIDENCE-STAB.
SULLIVAN 8 OZ. TANK
END 1/4" DOUBLER & SIDE
REC'VR.
F-1
F-2
F-3
F-4
F-5
F-6
1/4" BALSA DOUBLER
1/4" BALSA SIDE
CONTROL HORN
4-1/2" DIA. OPENING
1/2" TK. ENGINE MOUNTS
BATTERY PACK
COWL RING
0° INCIDENCE
CG
F-7
BASSWOOD INSERT
3/32" BRASS TUBING, EPOXY TO SIDES
1" DIA. "PERFECT" TAIL WHEEL
"CRESCENT IND." PUSH-ROD EXIT-GUIDES EA. SD.
ALUM. BRACKET
1/16" MUSIC WIRE TAIL WHEEL GEAR
11D x 7-3/4 P T/F PROP.
BALSA COWL
BLIND MOUNTING NUTS FOR COWL ATTACHMENT
1/8" GEAR BRACE
HOLLOW BALSA FAIRING
WP-4
WP-1
LAMINATED STRUT & WHEEL PANTS
8-32 NYLON SCREWS FOR WING HOLD DOWN
SIDE VIEW
1/4" BALSA BOTTOM
FULL SIZE MAIN GEAR PATTERN 5/32" MUSIC WIRE MAKE ONE RIGHT AND ONE LEFT, NOTE TORSIONAL TWIST
36°
AFTER 1/8" GEAR BRACE IS SOLDERED TO MAIN GEAR, EPOXY UNIT TO WP-1. INSTALL WHEEL ETC. THEN CEMENT WP-2, WP-3, & WP-4 TO EACH SIDE, & SAND TO SHAPE.
BEVEL FOR MAIN GEAR CLEARANCE R. & L.
LAMINATE COWL FROM 3/4" TK. BALSA RINGS, ALTERNATE DIRECTION OF GRAIN, EACH RING APPLY FIBERGLASS RESIN TO INSIDE ONLY. COWL CAN BE LATHE TURNED BY USING AN ADAPTOR BOLTED TO 1/8" PLY. COWL RING OR SLOW SPEED DRILL PRESS COULD BE SUBSTITUTED, EPOXY GLUE ALL JOINTS.
WP-2
WP-3
5/32" MAIN GEAR
3/8" BALSA BOTTOM QUARTER
2-3/4" DU-BRO L.B. WHEELS
HOLLOW WP-3 AS REQ'D. FOR MAIN GEAR CLEARANCE AS SHOWN
WP-1
WP-2
WP-3
MAIN GEAR
2-3/4" WHEEL
SOLDER WASHER TO MAIN GEAR
SECTION H-H
FILE NOTCH FOR COLLAR SET SCREW
WP-3 4 REQ'D. 3/8" TK. BALSA
MAKE WP-2 FROM 1/2" TK. BALSA & WP-4 FROM 1/4" TK. BALSA 4 PCS. REQ'D OF EACH. SAND STRUT TO AIRFOIL SHAPE AFTER ASSEMBLY.
FULL SIZE PATTERN OF 1/8" MAIN GEAR BRACE, MAKE ONE RIGHT & ONE LEFT BIND & SOLDER TO MAIN GEAR AS SHOWN.
BOTTOM VIEW OF WHEEL PANTS
WP-1 2 REQ'D. 3/16 TK. PLY.
Graphic Scale:
0 1 2 3 4 5 6
"deebee"
R/C Class III, Scale-like; 1929-39 National Air Racers
design & drawings by:
DARIO BRISIGHELLA Sr.
1