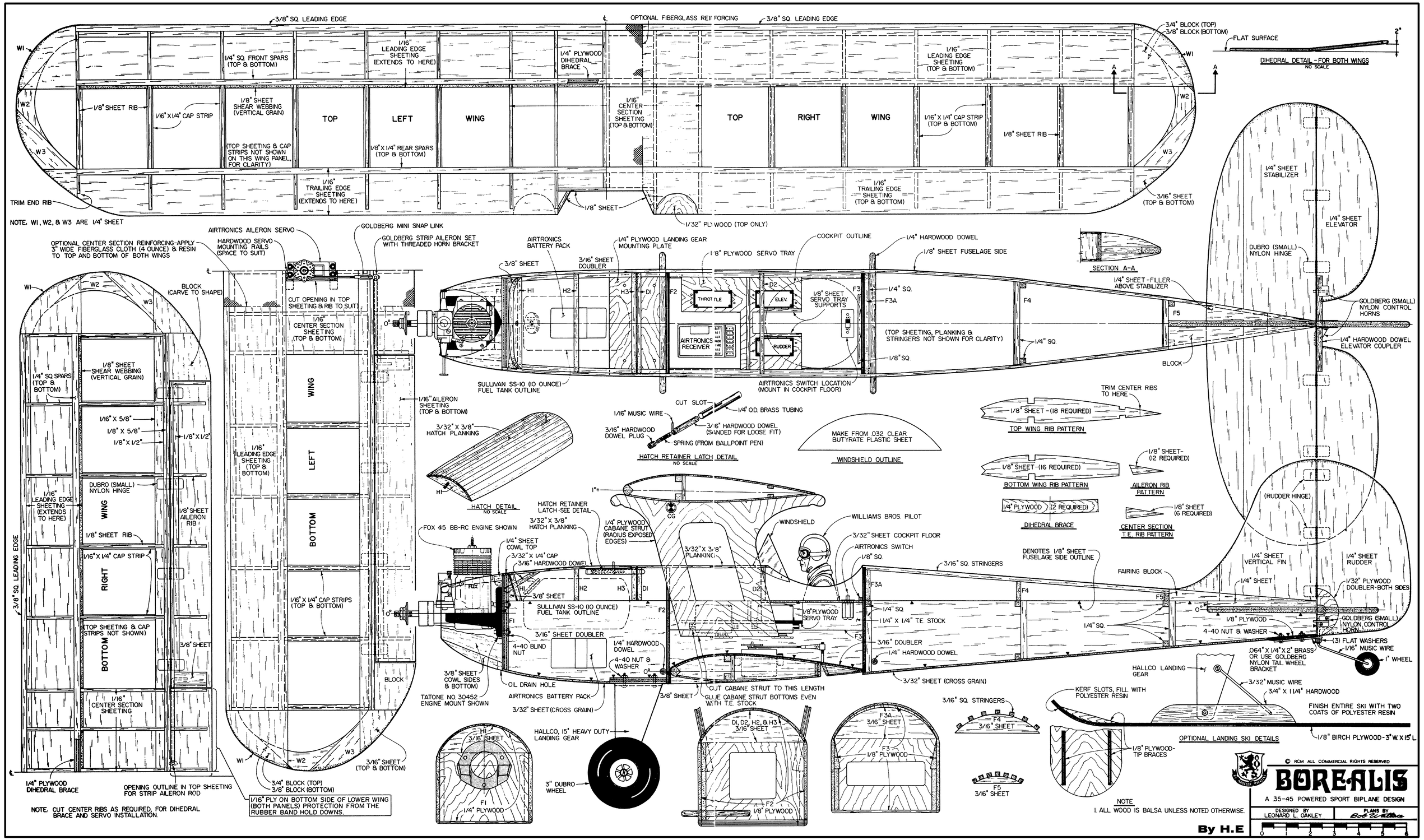
3/8" SQ. LEADING EDGE
OPTIONAL FIBERGLASS REINFORCING
3/8" SQ. LEADING EDGE
W1
W2
W3
1/4" SQ. FRONT SPARS (TOP & BOTTOM)
1/16" LEADING EDGE SHEETING (EXTENDS TO HERE)
1/4" PLYWOOD DIHEDRAL BRACE
1/16" LEADING EDGE SHEETING (TOP & BOTTOM)
3/4" BLOCK (TOP)
3/8" BLOCK (BOTTOM)
FLAT SURFACE
2°
DIHEDRAL DETAIL - FOR BOTH WINGS
NO SCALE
1/8" SHEET RIB
1/16" X 1/4" CAP STRIP
1/8" SHEET SHEAR WEBBING (VERTICAL GRAIN)
TOP
LEFT
WING
1/16" CENTER SECTION SHEETING (TOP & BOTTOM)
TOP
RIGHT
WING
1/16" X 1/4" CAP STRIP (TOP & BOTTOM)
1/8" SHEET RIB
(TOP SHEETING & CAP STRIPS NOT SHOWN ON THIS WING PANEL FOR CLARITY)
1/8" X 1/4" REAR SPARS (TOP & BOTTOM)
1/16" TRAILING EDGE SHEETING (EXTENDS TO HERE)
1/16" TRAILING EDGE SHEETING (TOP & BOTTOM)
TRIM END RIB
1/8" SHEET
1/32" PLYWOOD (TOP ONLY)
3/16" SHEET (TOP & BOTTOM)
NOTE. W1, W2, & W3 ARE 1/4" SHEET
A
A
SECTION A-A
1/4" SHEET STABILIZER
1/4" SHEET ELEVATOR
DUBRO (SMALL) NYLON HINGE
1/4" SHEET - FILLER ABOVE STABILIZER
GOLDBERG (SMALL) NYLON CONTROL HORNS
1/4" HARDWOOD DOWEL ELEVATOR COUPLER
BLOCK
OPTIONAL CENTER SECTION REINFORCING-APPLY 3" WIDE FIBERGLASS CLOTH (4 OUNCE) & RESIN TO TOP AND BOTTOM OF BOTH WINGS
AIRTRONICS AILERON SERVO
HARDWOOD SERVO MOUNTING RAILS (SPACE TO SUIT)
GOLDBERG MINI SNAP LINK
GOLDBERG STRIP AILERON SET WITH THREADED HORN BRACKET
AIRTRONICS BATTERY PACK
1/4" PLYWOOD LANDING GEAR MOUNTING PLATE
1/8" PLYWOOD SERVO TRAY
COCKPIT OUTLINE
1/4" HARDWOOD DOWEL
1/8" SHEET FUSELAGE SIDE
3/8" SHEET
3/16" SHEET DOUBLER
BLOCK (CARVE TO SHAPE)
CUT OPENING IN TOP SHEETING & RIB TO SUIT
1/16" CENTER SECTION SHEETING (TOP & BOTTOM)
F1
H1
H2
H3
D1
F2
THROTTLE
D2
ELEV.
AIRTRONICS RECEIVER
RUDDER
1/8" SHEET SERVO TRAY SUPPORTS
F3
1/4" SQ.
F3A
F4
F5
(TOP SHEETING, PLANKING & STRINGERS NOT SHOWN FOR CLARITY)
1/4" SQ.
1/8" SQ.
SULLIVAN SS-10 (10 OUNCE) FUEL TANK OUTLINE
AIRTRONICS SWITCH LOCATION (MOUNT IN COCKPIT FLOOR)
1/8" SHEET SHEAR WEBBING (VERTICAL GRAIN)
1/4" SQ. SPARS (TOP & BOTTOM)
1/16" X 5/8"
1/8" X 5/8"
1/8" X 1/2"
1/8" X 1/2"
DUBRO (SMALL) NYLON HINGE
1/16" LEADING EDGE SHEETING (EXTENDS TO HERE)
1/8" SHEET AILERON RIB
1/8" SHEET RIB
1/16" X 1/4" CAP STRIP
(TOP SHEETING & CAP STRIPS NOT SHOWN)
3/8" SHEET
1/16" CENTER SECTION SHEETING
3/8" SQ. LEADING EDGE
1/4" PLYWOOD DIHEDRAL BRACE
OPENING OUTLINE IN TOP SHEETING FOR STRIP AILERON RODS
1/16" LEADING EDGE SHEETING (TOP & BOTTOM)
1/16" X 1/4" CAP STRIPS (TOP & BOTTOM)
BLOCK
3/16" SHEET (TOP & BOTTOM)
3/4" BLOCK (TOP)
3/8" BLOCK (BOTTOM)
1/16" PLY ON BOTTOM SIDE OF LOWER WING (BOTH PANELS) PROTECTION FROM THE RUBBER BAND HOLD DOWNS.
NOTE: CUT CENTER RIBS AS REQUIRED, FOR DIHEDRAL BRACE AND SERVO INSTALLATION.
1/16" AILERON SHEETING (TOP & BOTTOM)
3/32" X 3/8" HATCH PLANKING
HATCH DETAIL
NO SCALE
CUT SLOT
1/4" O.D. BRASS TUBING
1/16" MUSIC WIRE
3/16" HARDWOOD DOWEL PLUG
3/16" HARDWOOD DOWEL (SANDED FOR LOOSE FIT)
SPRING (FROM BALLPOINT PEN)
HATCH RETAINER LATCH DETAIL
NO SCALE
MAKE FROM .032 CLEAR BUTYRATE PLASTIC SHEET
WINDSHIELD OUTLINE
TRIM CENTER RIBS TO HERE
1/8" SHEET - (18 REQUIRED)
TOP WING RIB PATTERN
1/8" SHEET - (16 REQUIRED)
BOTTOM WING RIB PATTERN
1/8" SHEET - (12 REQUIRED)
AILERON RIB PATTERN
1/4" PLYWOOD (2 REQUIRED)
DIHEDRAL BRACE
1/8" SHEET (6 REQUIRED)
CENTER SECTION T.E. RIB PATTERN
(RUDDER HINGE)
1/4" SHEET VERTICAL FIN
1/4" SHEET RUDDER
1/32" PLYWOOD DOUBLER-BOTH SIDES
GOLDBERG (SMALL) NYLON CONTROL HORN
(3) FLAT WASHERS
1/16" MUSIC WIRE
1" WHEEL
.064" X 1/4" X 2" BRASS OR USE GOLDBERG NYLON TAIL WHEEL BRACKET
HALLCO LANDING GEAR
3/32" MUSIC WIRE
3/4" X 1 1/4" HARDWOOD
FINISH ENTIRE SKI WITH TWO COATS OF POLYESTER RESIN
OPTIONAL LANDING SKI DETAILS
1/8" BIRCH PLYWOOD - 3" W X 15" L
1/8" PLYWOOD-TIP BRACES
KERF SLOTS, FILL WITH POLYESTER RESIN
3/16" SQ. STRINGERS
F4 3/16" SHEET
F5 3/16" SHEET
NOTE
1. ALL WOOD IS BALSA UNLESS NOTED OTHERWISE.
FOX 45 BB-RC ENGINE SHOWN
HATCH RETAINER LATCH-SEE DETAIL
3/32" X 3/8" HATCH PLANKING
1/4" PLYWOOD CABANE STRUT (RADIUS EXPOSED EDGES)
1/4" SHEET COWL TOP
3/32" X 1/4" CAP
3/16" HARDWOOD DOWEL
3/8" SHEET
SULLIVAN SS-10 (10 OUNCE) FUEL TANK OUTLINE
3/16" SHEET DOUBLER
4-40 BLIND NUT
1/4" HARDWOOD DOWEL
4-40 NUT & WASHER
3/8" SHEET COWL SIDES & BOTTOM)
TATONE NO. 30452 ENGINE MOUNT SHOWN
OIL DRAIN HOLE
AIRTRONICS BATTERY PACK
3/32" SHEET (CROSS GRAIN)
HALLCO, 15" HEAVY DUTY LANDING GEAR
3" DUBRO WHEEL
3/32" X 3/8" PLANKING
CG
WINDSHIELD
WILLIAMS BROS. PILOT
3/32" SHEET COCKPIT FLOOR
AIRTRONICS SWITCH
1/8" SQ.
3/16" SQ. STRINGERS
DENOTES 1/8" SHEET FUSELAGE SIDE OUTLINE
FAIRING BLOCK
1/4" SHEET
1/8" PLYWOOD SERVO TRAY
1/4" SQ.
1 1/4" X 1/4" T.E. STOCK
3/16" DOUBLER
1/4" HARDWOOD DOWEL
1/8" PLYWOOD
4-40 NUT & WASHER
3/32" SHEET (CROSS GRAIN)
CUT CABANE STRUT TO THIS LENGTH
GLUE CABANE STRUT BOTTOMS EVEN WITH T.E. STOCK
3/8" SHEET
H1 3/16" SHEET
F1 1/4" PLYWOOD
D1, D2, H2, & H3 3/16" SHEET
F2 1/8" PLYWOOD
F3A 3/16" SHEET
F3 1/8" PLYWOOD
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BOREALIS
A .35-45 POWERED SPORT BIPLANE DESIGN
DESIGNED BY LEONARD L. OAKLEY
PLANS BY Bob Wilson
0 1 2 3 4 5 6
By H.E