

The "HI-CLIMBER"

HIGH CLIMBING DURATION MODEL DESIGNED TO WAKEFIELD SPECIFICATION.

SPAN 38" : AREA 208 SQ. INS. : SECTION NACA 6412. LENGTH 38" : HEIGHT 17" : WEIGHT 8.25 OZ.

A **VERON** KIT.

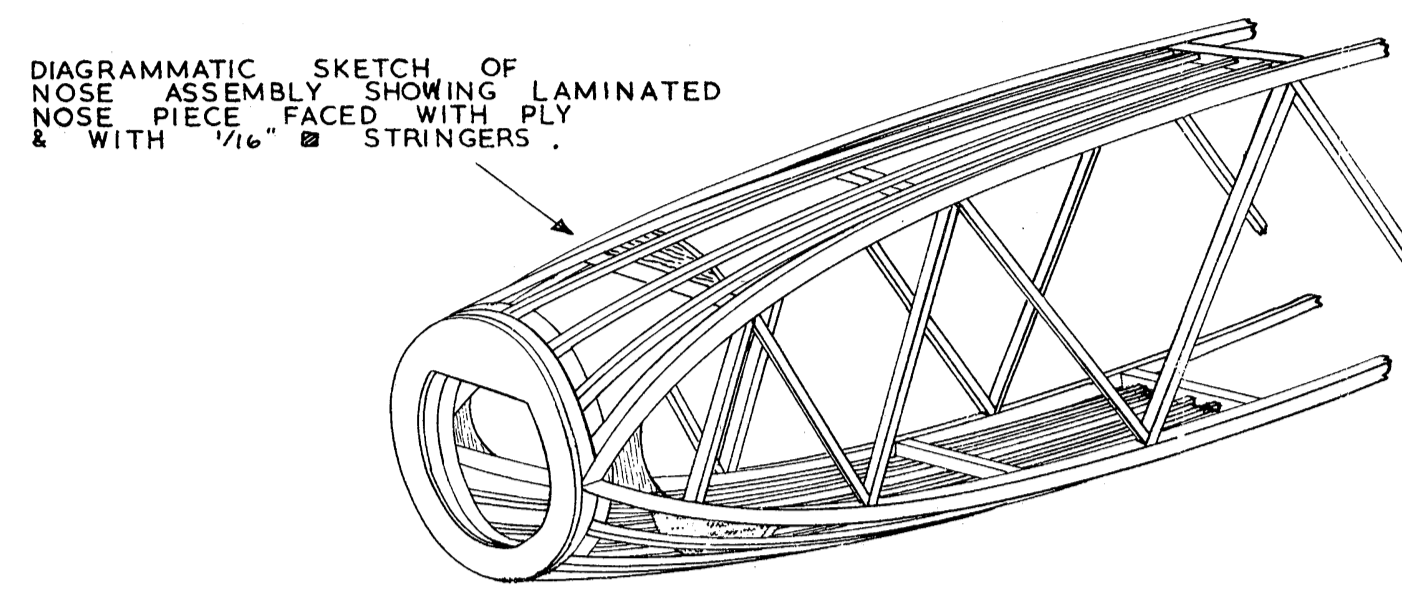
MODEL AIRCRAFT (BOURNEMOUTH) LTD. NORWOOD PLACE BOURNEMOUTH.

SHOWING FULL SIDE ASPECT OF WING POLYHEDRAL 4 1/4" AT TIPS.

FORMER P.1 IS MADE OF TWO LAYERS OF 1/16" SHEET Balsa laminated FOR STRENGTH.

1/8" DOWEL CEMENTED TO UNDERSIDE OF P.1 & MAINTAINED BY CROSSPIECE OF 1/8" Balsa.

DIAGRAMMATIC SKETCH OF NOSE ASSEMBLY SHOWING LAMINATED NOSE PIECE FACED WITH PLY WITH 1/16" STAINERS.



FORMER N.3.

NOSE BLOCK N.1, N.2.

AIRSCREW SPINNER.

N.5

FORMER P.2.

FORMER P.3.

FORMER P.4.

FORMER P.5.

FORMER P.6.

FORMER P.7.

FORMER P.8.

FORMER P.9.

FORMER P.10.

FORMER P.11.

FORMER P.12.

FORMER P.13.

FORMER P.14.

FORMER P.15.

FORMER P.16.

FORMER P.17.

FORMER P.18.

FORMER P.19.

FORMER P.20.

FORMER P.21.

FORMER P.22.

FORMER P.23.

FORMER P.24.

FORMER P.25.

FORMER P.26.

FORMER P.27.

FORMER P.28.

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FORMER P.35.

FORMER P.36.

FORMER P.37.

FORMER P.38.

FORMER P.39.

FORMER P.40.

FORMER P.41.

FORMER P.42.

FORMER P.43.

FORMER P.44.

FORMER P.45.

WING SECTION NACA 6412.

1/8" SHEET Balsa BALLAST BOX (PARTS 'BB').

CELLOPHANE CABIN FROM FRONT TO FORMER P.3. CEMENTED AROUND EDGES OF PYLON FORMERS P.1 & P.2.

C.G. BALANCE LINE (UNDER SPAR).

DIAGONAL 1/8" x 1/16".

CORNER BRACE.

1/8" DOWEL FOR REAR RUBBER FIXING.

TAILPLANE SPAR CUT FROM 1/16" x 3/8" STRIP TAPERED TO 3/16" AT TIP.

SKETCH SHOWING TAILPLANE RIB T.1 & HOW WHEN CONSTRUCTING TAILPLANE RIBS ARE LEFT AS RECTANGLE TO FACILITATE BUILDING FIRST THREADED ON SPAR LEADING AND TRAILING EDGES ADDED, THEN RIBS TRIMMED INDIVIDUALLY TO SHAPE.

1/16" x 1/8" STRINGERS.

1/8" DOWEL.

SCARF JOINTS.

UNDERFIN CUT FROM MEDIUM 1/8" Balsa SHEET WITH VERTICAL 1/8" x 1/8" BRACE TISSUE COVERED BOTH SIDES.

TRIMMING TAB HAS LEADING EDGE OF 1/8" x 1/8" RUBBER BANDS CEMENTED TOGETHER & ROUNDED.

PINS FOR HINGES.

F.5 SHOULD BE TRIMMED TO FIT EXACTLY IN PLACE OVER STERN BAY.

SMALL BENT PINS LEFT INTO FIN & FU FOR RUBBER BANDS.

1/8" x 1/8".

1/16" x 1/8".

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1/16" x 1/8".

FULL LINE SHOWS ANNEHEDRAL TIPS IN PROJECTED AREA. DOTTED LINE SHOWS ACTUAL SIZE.

LEADING EDGE 1/8" x 1/8" SET DIAGONALLY.

BUTT JOINT.

AREA BETWEEN TWO RIBS COVERED WITH 1/16" SHEET Balsa - TOP & BOTTOM.

TRAILING EDGE IS TAPERED FROM 3/8" x 1/8" AT CENTRE TO 1/4" x 1/8" AT TIP.

REAR OF RIBS SLOTTED INTO TRAILING EDGE.

NOTE: IF THIS MODEL IS FLOWN IN WAKEFIELD COMPETITIONS THE TIPS MUST BE RE-DEFINED VERTICALLY DOWNWARD OF THE PROJECTED AREA WILL BE ACCOUNTED OVER 35% ALLOWED.

SHOWN HOW U/C WIRE IS BENT & BOUND TO LONGERONS.

TOP BAY FILLED IN WITH 1/16" SHEET & FORMER P.2. CEMENTED FIRMLY TO IT.

ALL DIAGONAL SIDE BRACING IS 1/16" x 1/8".

BALSA GUSSETS (1/8" SHEET.) (ADDED AFTER U/C IS ATTACHED).

U/C WIRE IS BOUND WITH THREAD & CEMENT TO LOWER LONGERONS.

VERTICAL SUPPORT FOR REAR RUBBER FIXING OF 3/16" DOWEL IS LENGTH OF 1/16" x 1/2" Balsa.

LONGERONS ARE MEDIUM 1/8" x 1/8" Balsa. CROSSBRACES ARE 1/8" x 1/8" RUBBER ATTACHMENT 1/8" x 1/8" AFT. ALL SIDE DIAGONAL BRACES ARE 1/8" x 1/16". TOP CROSSBRACES SHOWN IN FULL - LOWER ARE DOTTED.

SHADED AREA SHOWS TOP BAY FILLED WITH 1/16" SOFT SHEET.

DOTTED LINE SHOWS POSITION OF P.2.

TRUE LENGTH OF 16 S.W.G. U/C WIRE IS 1 1/2" IN AN EIGHT INCH TRACK.

LOWER EDGE OF CABIN CELLOPHANE FORMER P.2.

PERSPECTIVE DIAG. M SHOWING CONSTRUCTION OF PYLON & CABIN. NOTE HOW STRIPS OF 1/8" x 1/8" ARE SET ALONG UPPER EDGES OF P.1 & CHAMFERED TO ALLOW FOR DIHEDRAL OF MAINPLANE.

FRONT WING FIXING DOWEL.

DOTTED LINE SHOWS AREA OF CABIN TO BE PAINTED IN WITH BLACK DOPE.

1/8" DOWEL CEMENTED FIRMLY INTO CORNER GUSSETS FOR REAR ATTACHMENT OF WING GUSSETS.

THIS PORTION CUT AWAY.

1/16" x 1/8" STRINGERS.

FRONTAL ASPECT OF POLYHEDRAL WING.

BALSA GUSSET.

SKETCH SHOWING HOW SPAR JOINT IS REINFORCED WITH 1/16" Balsa.

TOP ELEVATION OF FUSELAGE SHOWING PYLON & SUPERSTRUCTURE.

TOP ELEVATION OF FUSELAGE WITHOUT THE PYLON & SUPERSTRUCTURE.

TIP DIHEDRAL 4 1/4".

WING TIP MEMBERS ARE 1/16" SHEET.

CORNER GUSSETS FOR STRENGTH.

DIAGRAM SHOWING HOW RIBS ARE SLOTTED INTO T/EDGE.

MAINPLANE RIB - NACA 6412. SHOWING LEADING EDGE OF 1/8" SET DIAGONALLY & T/EDGE SANDED TO SHAPE FROM 1/2" x 1/8" Balsa.

CORNER GUSSETS OF 1/16" Balsa.

UPPER & LOWER CENTRE SECTION COVERED WITH SOFT 1/16" SHEET.

DOTTED LINE SHOWS C/SECTION GUSSET MADE FROM PLY.

SLOT IN CENTRE RIB IS WIDENED TO 1/8".

GUSSET OF 1/16" Balsa REINFORCING SPAR JOINT.

DIHEDRAL HERE IS 1".

MAIN SPAR - 1/2" x 1/16".

LEADING EDGE 1/8" x 1/8".

TRAILING EDGE 1/2" x 1/8".

FORMER P.1 MADE OF TWO LAYERS OF 1/16" SHEET Balsa LAMINATED FOR STRENGTH.

FORMER P.2 SHOWING POSITION OF FRONT 1/8" DOWEL FOR RUBBER BANDS HOLDING WING BALLAST BOX.

FORMER P.3.

FORMER P.4.

FORMER P.5.

FORMER P.6.

FORMER P.7.

FORMER P.8.

FORMER P.9.

FORMER P.10.

FORMER P.11.

BUILDING INSTRUCTIONS.

FAMILIARISE YOURSELF WITH THESE AND ALL OTHER INSTRUCTIONS BEFORE COMMENCING THE CONSTRUCTION.

FUSELAGE SCARF JOINT FOUR 1/8" x 1/8" HARD Balsa STRIPS WITH ADDITIONAL PIECES TO INCREASE LENGTHS TO 3/8". THESE FOUR LONGERONS SHOULD BE STEAMER FOR NOSE CURVATURE. PIN IN PLACE OVER PLAN ABOVE ABOVE WAXED TISSUE & INSERT DIAGONALS OF 1/8" x 1/8" TOGETHER WITH GUSSETS & REAR RUBBER FIXING (P.9) OF LAMINATED Balsa & PLY WHEN DRY REMOVE & BUILD OTHER RUBBER FIXING (P.9) OF LAMINATED Balsa & PLY. NEVER TRY TO GIVE UNIFORMITY OF CONSTRUCTION. ADD CROSSPIECES OF 1/8" x 1/8" STARTING AT CABIN POSITION. CHECKING FOR SQUARENESS. PULL REAR ENDS TOGETHER & JOINT WITH CEMENTED 1/8" Balsa GUSSETS. ADD REMAINDER OF 1/8" x 1/8" CROSSPIECES FOR NOSE FORMERS N.1 & N.2. N.1 (PLY) DRAW NOSE OF LONGERONS INTO SLOTS PROVIDED. PIN TEMPORARILY & RELEASE TENSION BY STEAMER. ADD FORMERS P.3 & P.4. BUILD SHEET IN FRONT TOP CABIN BAY & ADD FORMER P.2. ALSO P.3 TO P.8. LAMINATE P.1 & CEMENT FIRMLY TO SLOTS ON P.3 & P.4. BUILD IN CORNER GUSSETS 1/16" SHEET Balsa & 1/16" x 1/8" DIAGONALS. CONSTRUCT BALLAST BOX (P.9) & CEMENT IN PLACE. ADD REAR 1/8" x 1/8" STRINGERS (FORMERS P.4 TO P.8). BEND U/C WIRE TO SHAPE (16 S.W.G.) & BIND IN PLACE WITH STRONG THREAD COATED WITH CEMENT & GUSSETS. WHEELS ARE RETAINED BY SOLDERED WASHERS. CEMENT FIRMLY IN PLACE WITH FIXING DOWELS (1/8") IN CABIN. ALSO CELLOPHANE CABIN FRONT. ADD UNDERFIN OF 1/8" x 1/8" SHEET (P.9) & CHAMFERED EDGES OF 1/8" x 1/8" TO UPPER EDGES OF CABIN FOR WING DIHEDRAL. COVER CROSSPIECES WITH PLY (P.3). ADD FOUR CORNERS OF 1/16" Balsa (1.8.1) GRAIN CROSSWISE & FACED WITH PLY (P.3). ADD REAR 1/8" PLUGS (N.2) ENSURING GOOD FIT IN NOSE. SAND EDGES OF NOSE BLOCK TO STRAIGHTLINE WITH SPARS FOR RIBS. FIT TRAILING AND LEADING EDGES WHEN SET REMOVE FROM PLAN & TRIM & SAND ALL RIBS TO CORRECT CAMBERED SECTION. COVER C/SECTION WITH SOFT 1/16" SHEET (TOP & BOTTOM). GRAIN CROSSWISE. SAND TIP PIECES TO SMOOTH & COVER BOTH SIDES WITH TISSUE WHEN DRY. SAND STRAIGHT EDGE TO 45° CHAMFER AFTER COVERING STABILIZER. CEMENT TIPS IN PLACE TO GIVE ANNEHEDRAL. SAND ALL RIBS TO UNIFORMITY. FOR POSITIONING ABOUT SPAR GUSSETS TRIM ENDS OF TWO LENGTHS OF 1/16" x 1/8" SPARS (P.4 & P.5) & 1/16" x 1/8" SPARS (SEE PERSPECTIVE SKETCH). CHECK FOR SYMMETRY. ADD TRIMMING TAB AND TWO PIECES SCRAP 1/16" Balsa ARE ADDED TO NOSE OF FIN AND SANDED TO CONTOUR OF P.8. FIXTURE OF FIN BY RUBBER BANDS IS OPTIONAL OR CAN BE CEMENTED.

STABILIZER CUT ALL RIBS OUT AS RECTANGLES & NOTCH AWAY SPAR AND C/EDGE SLOTS. SLOT RIBS IN PLACE ON 1/16" SHEET TAPERED SPAR. T/EDGE TO 1/16" AT TIPS. PIN SPAR & RIBS IN PLACE WITH PLAN TAPER & SHAPE T/EDGE TO A STRAIGHTLINE WITH SLOTS FOR RIBS. FIT TRAILING AND LEADING EDGES WHEN SET REMOVE FROM PLAN & TRIM & SAND ALL RIBS TO CORRECT CAMBERED SECTION. COVER C/SECTION WITH SOFT 1/16" SHEET (TOP & BOTTOM). GRAIN CROSSWISE. SAND TIP PIECES TO SMOOTH & COVER BOTH SIDES WITH TISSUE WHEN DRY. SAND STRAIGHT EDGE TO 45° CHAMFER AFTER COVERING STABILIZER. CEMENT TIPS IN PLACE TO GIVE ANNEHEDRAL. SAND ALL RIBS TO UNIFORMITY. FOR POSITIONING ABOUT SPAR GUSSETS TRIM ENDS OF TWO LENGTHS OF 1/16" x 1/8" SPARS (P.4 & P.5) & 1/16" x 1/8" SPARS (SEE PERSPECTIVE SKETCH). CHECK FOR SYMMETRY. ADD TRIMMING TAB AND TWO PIECES SCRAP 1/16" Balsa ARE ADDED TO NOSE OF FIN AND SANDED TO CONTOUR OF P.8. FIXTURE OF FIN BY RUBBER BANDS IS OPTIONAL OR CAN BE CEMENTED.

WHEELS CUT ALL RIBS OUT AS RECTANGLES & NOTCH AWAY SPAR AND C/EDGE SLOTS. SLOT RIBS IN PLACE ON 1/16" SHEET TAPERED SPAR. T/EDGE TO 1/16" AT TIPS. PIN SPAR & RIBS IN PLACE WITH PLAN TAPER & SHAPE T/EDGE TO A STRAIGHTLINE WITH SLOTS FOR RIBS. FIT TRAILING AND LEADING EDGES WHEN SET REMOVE FROM PLAN & TRIM & SAND ALL RIBS TO CORRECT CAMBERED SECTION. COVER C/SECTION WITH SOFT 1/16" SHEET (TOP & BOTTOM). GRAIN CROSSWISE. SAND TIP PIECES TO SMOOTH & COVER BOTH SIDES WITH TISSUE WHEN DRY. SAND STRAIGHT EDGE TO 45° CHAMFER AFTER COVERING STABILIZER. CEMENT TIPS IN PLACE TO GIVE ANNEHEDRAL. SAND ALL RIBS TO UNIFORMITY. FOR POSITIONING ABOUT SPAR GUSSETS TRIM ENDS OF TWO LENGTHS OF 1/16" x 1/8" SPARS (P.4 & P.5) & 1/16" x 1/8" SPARS (SEE PERSPECTIVE SKETCH). CHECK FOR SYMMETRY. ADD TRIMMING TAB AND TWO PIECES SCRAP 1/16" Balsa ARE ADDED TO NOSE OF FIN AND SANDED TO CONTOUR OF P.8. FIXTURE OF FIN BY RUBBER BANDS IS OPTIONAL OR CAN BE CEMENTED.

FIN CUT FROM MEDIUM 1/8" Balsa SHEET WITH VERTICAL 1/8" x 1/8" BRACE TISSUE COVERED BOTH SIDES. FIN CAN BE CEMENTED FIRMLY IN PLACE IF DESIRED BUT IF REMOVABLE SHOULD BE SECURED WITH DOWEL & RUBBER BANDS AT THIS POSITION & AT REAR.

TAIL PLANE SHOULD BE SECURED AT ANGLE SHOWN (5°) WITH RUBBER BANDS & RESIN ON SHEET Balsa SUPPORT. WHEN CORRECT TRIM IS FOUND TO COMPLY WITH FUSELAGE FORMULA.

