A 33¾" SPAN DELTA WING POWER MODEL FOR ·5 TO ·8C.C. ENGINES

JAVELAN.

DESIGNED BY

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6/-

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38, CLARENDON RD., WATFORD, HERTS.

ALL WOODS ARE BALSA UNLESS OTHERWISE STATED.

4 sheets	1/32 x 5 x 36"	Medium Balsa
1 "	1/32 x 3 x 18"	do.
5 "	1/16 x 3 x 36"	do.
2 "	3/32 x 3 x 36"	do.
2 "	1/8 x 3 x 36"	do.
2 "	3/16 x 3 x 36"	do.
4 pieces	3/32 x 3/32"	do.
10 "	1/8 x 1/8 x 36"	do.
1 "	1/4 x 1/8 x 36"	do.
1 length	16 s.w.g.	Piano Wire
1 "	20 s.w.g.	do.
1 piece	4 x 6"	Plywood
1 "	4 x 6"	do.
1 "	2½ x 2 x 1½	Soft Balsa
2 only	1½ in. diameter	Wheels
1 "	1¼ in. diameter	do.

Tissue, clear, and coloured dopes.

WING: Pin leading edge and lower section of trailing edge on plan. Position centre cap strip, but do not cement along the centre line, as dihedral break occurs here. Fix all bottom cap strips and add lower spar. Place W1 in position directly over centre line, cementing on right side only. Working on right panel, place ribs and trailing edge strips; top spars and sheet in leading edge. Complete with top cap strips and trailing edge, reflex T.E. and elevons setting latter at an angle of 21 degrees.

When dry, raise right panel 2½ ins at tip, then build left panel in similar fashion. Remove from plan and add rounded lower leading edge to complete airfoil section. Cover and dope completed form.

FIN & TAILPLANE: Are built on the same principle as wing.

FUSELAGE: Build basic crutch on plan, and complete lower half of fuselage whilst in position. Instal motor support, sew u/cart leg to F12 and cement in place.

Add all formers (lower) and stringers, and cover with 1/32 in.sheet whilst still on plan. Carve balsa nose block to approx. shape, hollow out, and cement in position.

Remove from plan, sand smooth and cover. Instal main undercarriage legs and support, sewing to longerons with a binding fit to allow sliding of unit and obtain the best C.G. position.

Cement ply engine mount in slot, and cement wing to fuselage, placing the V right up against the engine mount. Fix upper formers in position, and fit R1 into position. Ensure that fin is vertical and cement paper tubes in place. Add all stringers, cover with 1/32in sheet, sand smooth and cover. Build up cowling to suit engine in use.

GENERAL: Glide model over long grass, and adjust elevons for a flat glide without a stall. Adjust rudder tab for very slight turn to right. Best results on the original model were with a 7 x 3 Stunt prop cut down to 6½ ins.

CEMENT INTO F3 & ENGINE MOUNT SUPPORT

ENGINE MOUNT. 1/8" PLY.

POSITION OF FINS.

SLOT FOR MILLS ·75 C.C. BEARER LUGS.

ENGINE MOUNT SUPPORT 1/16" PLY. CEMENT TO LONGERONS & BLOCK.

3/16" SHEET (MED) MOVEABLE ELEVON & ALUMN HINGES.

3/16" SHEET (SOFT) FIXED ELEVON. CEMENT TO T.E. AT +21°

NOTE: THRUST LINE IS OFFSET TO PORT TO AVOID USE OF RIGHT THRUST.

COWLING IS REMOVABLE FROM HERE FORWARD. PLANK WITH 1/16" SHEET.

CUT AWAY FOR COCKPIT.

POSITION OF COMMERCIAL CANOPY.

ENGINE MOUNT.

1¼" DIA. SPINNER.

OUTLINE OF W2.

POSITION OF WING.

C.G.

3/32" SQ. STRINGERS. TOP SIDE STRINGER REMOVED FOR CLARITY.

1/8" SQ. TOP STRINGER.

1/32" SHEET COVERING.

1/32" SHEET EACH SIDE.

1/16" SHEET GLUED TO FIN & SANDED TO SHAPE.

F1. F2. F3. F4. F5. F6. F7. F8. F9. F10. F11. F12. F13. F14. F15. F16. F17. F18.

R1. R2. R3. R4. R5.

BALSA BLOCK. CARVE TO SHAPE & HOLLOW OUT TO ¼" WALL THICKNESS.

1¼" DIA. WHEEL.

1/8" X ¼" PLY LET INTO BOTTOM STRINGER.

THIN ALUMN TAB. SECURE TO PLY WITH WOODSCREW.

MAIN U/C LEG LET INTO TOP OF CRUTCH & BOUND TO LONGERONS.

1½" DIA. WHEELS.

U/C SUPPORT SECURE TO CRUTCH WITH TAB.

CRUTCH. (SEE BELOW)

PAPER TUBES CEMENTED INTO FUSELAGE TO TAKE 1/8" DIA. DOWELS CEMENTED INTO FIN.

1/8" SQ. FILL BETWEEN FORMERS TO SUPPORT 1/32" SHEET COVERING.

1/8" SHEET SUPPORT FOR PAPER TUBE.

1/8" PLY SKID.

¼" SOFT SHEET.

SECTION A.A.

TAILPLANE PLATFORM. NOTE INC - 2½°.

PIN FOR RUBBER BANDS.

1/32" X ¼" CAP STRIPS.

1/16" X ¼" L.E. BETWEEN RIBS.

1/16" X 7/8" T.E. BETWEEN RIBS.

3/32" SQ. SPARS.

1/16" X ¼" STRIPS BETWEEN RIBS.

1/32" X 3/8" CAP STRIP.

3/32" SHEET.

1/32" X 1/8" EACH SIDE OF 1/16" T.E.

ALUMN HINGES.

3/32" SHEET TRIM TAB.

NOTE THAT ENGINE MOUNT SUPPORT IS SHOWN INVERTED WITH REST OF CRUTCH.

4 STRINGERS 1/8" SQ.

PINS PUSHED INTO TAILPLANE PLATFORM FOR RUBBER BANDS. HEIGHT OF PINS TO BE SUFFICIENT TO STOP FORWARD MOVEMENT OF TAILPLANE

1/8" SHEET TAILPLANE PLATFORM.

T1. T2. T3. T4.

1/8" X 1/2 T.E.

1/32" SHEET TOP & BOTTOM.

1/32" X ¼" CAP STRIP TOP ONLY.

1/32" SHEET. TOP ONLY.

1/8" SQ. L.E.

1/16" SHEET 1½" WIDE ON TOP.

1/16" SHEET ¾" WIDE ON BOTTOM.

1/8" X 3/32" STRIP ON TOP OF BOTTOM T.E.

SOFT ALUMN HINGES.

1/8" SQ. SPAR (BOTTOM) CEMENT ON TOP OF LOWER CAP STRIPS.

1/8" SQ. SPAR. (TOP)

1/16" X 1" CAP STRIPS ON BOTTOM.

COVER TOP WITH 1/16" SHEET.

3/16" SOFT SHEET ON BOTTOM 1½" WIDE AT W2 & ¾" WIDE AT W7. SAND TO SECTION SHOWN ON DETAILS

1/16" X ¼" CAP STRIPS TOP & BOTTOM.

W1. W2. W3. W4. W5. W6. W7.

1/16" X 1/2" L.E.

1/16" SHEET. TOP ONLY.

1/8" SQ SPAR (TOP)

1/8" DIHEDRAL AT W7.

1/16" X ¼" L.E.

1/16" X ¼" STRIPS.

3/32" SQ. SPARS.

1/32" X 1/8"

3/32" SHEET.

1/16" X 5/8" T.E.

1/32" SHEETING.

1/32" X ¼" CAP STRIPS.

SECTION THRO' FIN AT R4.

CRUTCH IS DRAWN INVERTED FOR BUILDING.

3/16" SQ. LONGERONS.

1/8" X ¼" CENTRE STRINGER.

1/32" SHEET COVERING.

CUT TO DOTTED LINE FOR F12.

PIERCE FOR U/C THREAD BINDING IN F12.

F12, 13, 14 & 15.

F16. F17. F18.

1/8" SQ.

3/32" SQ.

1/32" SHEET.

1/16" SHEET.

W1. W2.

1/16" X 1" CAP STRIPS.

3/16" SQ. LONGERONS.

SECTION THRO' FUSELAGE.

MAIN U/C LEG 16 S.W.G. WIRE.

1/8" SQ.

1/8" X ¼" PLY.

20 S.W.G. WIRE U/C LEG SUPPORT.

WASHER.

FORM WIRE SUPPORT INTO LOOP & SLIP OVER AXLE DO NOT SOLDER.

FRONT U/C LEG. 16 S.W.G. BIND TO F12.

F1. F2. F3. F4. F5. F6. F7. F8. F9. F10. F11.

1/8" DIA. DOWELS.

FORMERS.

F1.	3/8" SHEET
F2, 4, 5, 6, 7, 8, 13, 14, & 15.	3/32" "
F3, 9, & 10.	1/8" "
F11, 16, 17, & 18.	1/16" "
F12.	1/16 PLY.

HOLES FOR PAPER TUBES.

R1.

CEMENT TO F8, 9, 10 & F11.

R2. R3. R4. R5.

R2 - R5. 2 OFF EACH.

W1.

L.E. SHEETING.

1/16" X 1/2" L.E.

W2.

C/S SHEETING.

NOTE: T.E. SHEET IS NOT CEMENTED TO T.E. OF RIB.

3/16" SHEET.

CAP STRIP.

3/32" X 1/8" STRIP.

FIXED ELEVON.

POSITION OF WING TIP.

1/8" SHEET (HARD) FIN. 2 OFF.

NOTE FIN ANGLE ON EACH TIP.

RIBS.

W1.	1/8" SHEET.
W2 & W7.	3/32" "
W3, 4, 5, & 6.	1/16" "
T1 - T4.	1/16" "
R1.	1/8" "
R2 - R5	1/16" "

W3.

W4.

W5.

W6.

W7.

21°

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