
CORSAIR II
designed by
PAVEL BOSAK
The R.C.M.&E. Plans Service
A 1054 mm wingspan near-scale model of an American Navy jet fighter for four function radio control & two stroke motors of 0,25 cu.in to 0,40 cu.in. capacity.
WING CONSTRUCTION
Build wing in two separate panel taking due note of "skew" of slots. Assemble spars, ribs, false leading & trailing edges and fit top sheeting. Join wing halves flat on building board (i.e. bottom of wing is flat — top has slight anhedral) Turn wing over & fit ply braces, dowel, servo box, torque rods & wing bolt reinforcement. Sheet underside of wing. Add leading edges & tips — sand all over. Finally fit ailerons & drill wing mounting bolt holes.
Entire wing is sheeted top & bottom with well sanded 2,5 mm med. grade sheet. Butt join sheets before skinning wings.
9mm hardwood dowel.
2mm ply joiner.
1mm ply both sides of mainspar
2mm ply joiner.
Leading edge from 9mm sheet
False leading edge from 4,5mm sheet
W1
W2
W3
W4
W5
W6
W7
W8
Riblet from scrap 2,5 mm sheet.
Scrap wedge of hard balsa fitted between top & bottom sheet to reinforce wing bolt fixing.
Servo box from 2,5 mm sheet
Commercial aileron torque rods — ball & socket types prefered due to angle of wing sweepback.
Upper wing sheeting drawn cut away to show internal structure.
False trailing edge 12 mm × 6mm
Cut ailerons from 12mm sheet
Commercial nylon hinges
Soft block wingtip
Motor mount — 9mm hardwood Trim & drill to suit motor
Mainspar — 4,5mm sheet.
NOTE :- Mainspar & wingribs are slotted on the "skew" to allow for sweepback Parts shown are for the left hand wing. Skew slots the other way for right hand wing.
All wing ribs from 2,5 mm sheet.
W15
FUSELAGE CONSTRUCTION
Cut out all formers & laminate fuselage sides with their doublers. Drill F3 & fit noseleg bearing. Cut & drill hardwood mount to suit motor & glue mount to F2. (Note — commercial motor mount may be substituted if desired but F2 should be increased to 6mm thick.) Glue formers & fuselage sides together checking alignment. Fit wing blocks & undercarriage beams. Check wing alignment & fit - if satisfactory, add ply wing seatings, trapping them between wing & fuselage until glue has set for a perfect fit. Add cockpit floor & plank upper half of fuselage. Sand smooth. Fit all tail surfaces. Temporarily install radio & connect up all linkages. Being internal, they cannot be got at later !! Install main undercarriage & completely plank lower fuselage. Refit wing adding F4b & F6a — plank over-wing fairing. Cut away F1, F1a & F1b to clear motor, remove complete cowl & glassfibre inside. Cowl may be stuck back or may be made detachable complete with tank bay floor for ease of maintenance.
Scrap cross sections of fuselage
Note how upper decking is cut away to clear nylon wing fixing bolts. Back up slots with scrap 2,5mm sheet.
Entire undercarriage is from 10 s.w.g. pianowire. Each side consists of three legs — two front & one rear ! Rear legs & lower front legs plug into centre hardwood beam & are retained with collets or washers soldered on. Upper front legs are bound to underside of outer hardwood beams & epoxied.
Bind with fusewire & solder
Front & rear legs
Front legs only
Retain wheels with collets or washers soldered on.
Tail "bullet" from scrap balsa.
Tailplane & fin structure is from 12 mm × 6mm strip covered both sides with well sanded 2,5mm sheet. Butt join sheet before covering frames.
Elevators & rudder are from 12 mm sheet, sand to typical section as shown.
Commercial nylon hinges.
Fin strake from 4,5mm sheet
Fairing from scrap 12mm sheet
Nylon wing hold-down bolt
Mould canopy from acetate sheet or cut down suitable commercial item.
Cockpit floor - 3mm sheet.
Upper wing fairing - rolled 3mm sheet or planked with 3mm strip.
F1a
F1b
F1
F2
F3
F4a
F4b
F4
F5
F6
F6a
F6b
F6c
F7
F8
1mm ply wing seating
C of G
NICAD AREA
FUEL TANK BAY.
Optional duct
RECEIVER AREA
SERVO AREA
Optional end of ply doubler
Build up cowl as part of lower fuselage planking. Cut away after completion & glass fibre inside. Chin section of F1 may be cut away to form air intake. Optional exhaust duct for cooling air can be fabricated from scrap sheet to fit between F2 & F3 exhauting below fuselage
55 mm nosewheel on commercial 10 s.w.g. piano wire steerable leg.
Lower fuselage planked with strips of 3mm balsa.
All undercarriage support beams are 9mm sq beech. Add scrap blocks for reinforcement as shown
67mm dia. main wheels
Main fuselage sides are 2,5mm sheet with 0,8mm ply doublers over the entire length (shown thus ▲) For lighter, lower powered models, doublers may be stopped short as shown
F7 - cut away top to accept fin after planking fuselage top
Two push rods to "separate" elevators or use a "Y ended" pushrod.
"Aileron" type torque rods used on each elevator & for the rudder. Ball & socket types are prefered due to the angle of sweepback. As all linkages are internal, connections must be made before adding lower fuselage planking.
Cut away after assembly
Cut away after assembly to clear motor
F4a to this line
F4b to this line
F6a,b&c.
Fair in wing seating with micro balloons
Temporary crossbrace remove after assembly
F5 to this line.
1mm ply wing seating
Wing bolt blocks — 12mm hardwood - drill & tap to suit nylon bolts
FORMER DATA —
F1 — 2,5 mm balsa.
F1a & F1b — 2mm ply.
F2 — 2mm ply
F3 — 2mm ply
F4 & F4a — 2mm ply.
F4b — 3mm balsa
F5 — 2mm ply
F6 — 2mm ply
F6a & F6b — 0,8 mm ply
F6c — 2,5 mm balsa
F7 — 4,5 mm balsa
F8 — 4,5 mm balsa
NOTE —
Tailplane on original model was built flat for simplicity. For better "scale" appearance incorporate 25 mm dihedral under each tailplane tip