

# SABRE

## Albert E. Hatfull

### THE NORTH AMERICAN F-86 'SABRE'

Designed and drawn by Albert E. Hatfull.

The F-86 is a highly streamlined jet fighter which employs 35 degrees of sweepback on wing and tail surfaces. It has achieved a speed of 670 m.p.h. equipped with its operational load in guns and ammunition. An ejector seat is fitted to provide escape for the pilot in an emergency.

NOTE:—No wheels are supplied in this kit.

#### BUILDING INSTRUCTIONS

Cover the plan with greaseproof paper.

#### FUSELAGE

Pin the pieces of 3/16" x 1/16" which form the top outline of the fuselage to the plan, cement the joins. Pin piece 'A' and the two pieces of 3/16" x 1/16", which run from formers 5 to 9, to the plan, cement joins. Cement piece 'C' where shown. Cement the half-formers 2, 3, 4 (leave 4a), 5, 6, 7, 8 and 9 over their correct positions on the previously laid strips. Hold the formers perfectly upright by placing pins on either side of them until set. Cement piece 'B' (left) in place on formers 4, 5 and 6. Cement the 1/16" x 1/16" stringers into the notches provided in the formers, notice their arrangement in Side View and also where the 'lap' joints are made at former 7. LEAVE OUT the lowermost stringer temporarily. This half of the fuselage may be removed from the plan when the cement has set. Cement the other (right hand side) half-formers in position directly opposite and in line with the first (left hand side) set of half-formers. When set the stringers may be cemented to this second (or right-hand) side together with piece 'B' (right). Cement former 1 to the balsa nose block provided in the kit, then carve the block to the outline of former 1, now carve the shape as shown in Side and Top Views and hollow out as drawn. Cement this unit on to the front face of former 2 and sandpaper to a smooth finish while it is attached to the fuselage (this helps to blend the shape of the nose block into the line of the fuselage). From the piece of 1/4" x 3/8" balsa provided, cut the 'Clip mount' to the exact length on plan, cement the 'JX-1 50' clip (supplied in each JX-1 50 outfit and not contained herewith) to the 'Clip mount' so that the screw holes line up with the 'Fixing screw centres' on the plan, in this position the front of the clip should be 9/16" from the rear face of former 4, check this before finally installing. Check also that the clip is central and parallel with the clip mount — THIS IS IMPORTANT — if correct, screw the clip to the mount using the screws provided in JX-1 50 outfit. Install this unit into the notches in formers 4 and 5 and the recess formed by piece 'C', cement well. The two lowermost stringers may now be added, these 'stop' at former 8. Make the tail cone as shown, apply cement to the rim and attach to former 9 as drawn. Cement pattern 'Z' in place in the recesses in formers 5, 6 and 7, to form the 'trough' as drawn in small sketch. This prevents local scorching by the jet efflux. Tissue cover the fuselage using strips of tissue sufficient to span the gap between two (more where possible) adjacent stringers and, where convenient, running the whole length of the fuselage. Leave the part at the tail position uncovered. Water shrink and dope the tissue. Cement 4a in place. Trim the cockpit cover (using scissors) to the shape on the plan and cement in place.

#### WINGS

Hold the front and rear lower spars of 1/16" x 1/16" in position on the plan by placing pins on either side of them. Leave spars protruding beyond R1 as shown. Cement ribs R2, R3 and R4 to these spars and directly over the rib positions drawn on plan. Cement R1 in place using the template as shown to obtain the necessary tilt (R1 on each wing). Apply cement to the tails of the ribs then attach the trailing edge. Apply cement to the notches in the noses of the ribs then press the leading edge into these notches. Check the tilt in rib R1 again with the template and, if correct, cement the top spar into the notches in the top of the ribs. Roughly shape the tip blocks from 1/4" x 1/4" balsa then cement into position, remove wing from plan and finish shaping the tip blocks with fine sandpaper. Tissue cover, water shrink and dope both wings, add the pitot tubes at each wing tip.

#### ASSEMBLY

Cut the tailplane from the printed sheet and join the two halves together as shown on plan, with one half flat and the other tip propped up to 2 1/2" until the cement sets. Cement the tailplane in place on the fuselage (resting on the second stringer from the top on each side). Cement pattern 'Y' over former 8 and the top of the tail. Cement the Fin fairing 'D', scrap sheet gusset and piece 'E' in position. Check the line up of the Fin and tailplane by 'sighting' along the fuselage from the front. Apply cement to rib R1 of each wing, then press into position on piece 'B' of the fuselage, notice how the protruding wing spars fit into the notches in items 'B' (left and right). The position of the undercarriage is shown for those modellers who wish to build the model for 'show' purposes, and in this case coloured dope may be used to finish the model as desired. Colour doping is not recommended for a flying model owing to the extra weight; if however, the colour is used thinly, it should not raise the weight enough to prevent flights of moderate duration. The model looks most authentic when finished all silver, or very light grey, with matt black anti-glare panel in front of the cockpit. Control surface hinge lines may be ruled on with black ink as in the perspective sketch which also shows authentic markings.

#### FLYING

Test glide the model by hand launching from shoulder height on a slightly downward path directly into the wind. If the model dives (see sketch) add a small piece of plasticine to the inside of the tail cone. If the model stalls, add a small piece of plasticine to the inside of the 'scoop' formed in the nose block. When a flat glide has been obtained jet power may be used. We advise you to read the leaflet supplied in the JX-1 50 outfit before loading and fitting the jet unit into the model.



