

CONSTRUCTION NOTES

With the small total wing area, wing loading

is quite high. Despite this, with two 29 displacement engines running at full rpm's, this "Zombie" really moves. To improve stability the bellcrank is shown mounted lower on the plans; however, it could be in the wing as on the original.

Although not intended for novice builders, the construction of the model is **not hard**, by following the plans and assembling the plane as recommended. A little patience in its construction and finish will repay the builder with a fine-appearing, good-flying, twin-engine model that has realism. Easiest way to mount the engines is as shown on the photos; follow the plans if you want best scale appearance.

Construction can begin with the fuselage. Cut out all the fuselage formers of $\frac{1}{8}$ " sheet except F2 which is $\frac{3}{16}$ " plywood. Make the formers in halves vertically except F2 which is cut to its full outline. Lay down the $\frac{1}{8}$ " x $\frac{1}{4}$ " top and bottom longerons over the fuselage side plan. Cement all formers in position except F2. Add $\frac{1}{8}$ " square side longeron and several planking strips to aid stiffness. Take up this assembly when thoroughly dry and add other top and bottom longerons. Add other halves of all formers and side longeron.

Bend nose gear wire to shape and fix to plywood former with "eye" or "J" bolts. Former F2 is then slid into position between longerons and cemented. It will be necessary to cut lower longeron to clear gear leg. Doublers should be added around the cut. Back up F2 with $\frac{1}{4}$ " sheet gusset as shown on plans. Plank fuselage with $\frac{1}{8}$ " x $\frac{1}{4}$ " or $\frac{1}{8}$ " x $\frac{3}{8}$ " strips. Add bellcrank mount, bellcrank and pushrod before planking is completed. Nose, cockpit and tail cone blocks can be added and carved to shape.

The wing is assembled after the $\frac{1}{8}$ " sheet balsa ribs have been cut to shape. The spars should be of firm, hard balsa wood. Build up over the plan views, blocking up leading and trailing edge so the chord line is level. Omit rib W1 until later. Plan has right wing panel construction shown. Left panel has scale details with construction omitted for clarity. Connect short lines at leading and trailing edges with pencil lines to get rib positions. Spars and edge ends are shown dotted at root and tip. These should also be connected with pencil lines. Construction lines will then not interfere with printed scale details. The leading and trailing edges can be carved after assembly and planking. Use cement liberally on all joints.

The stabilizer and elevator are assembled like the wing except that these are built with the dihedral angle as shown on the plans. The elevator control horns are separate and made from two Veco horns with one side cut off as shown. The stabilizer and elevator can be covered with sheet and assembled into one unit before mounting on the fuselage. The hinges can be either of heavy fabric, brass or tin strips wrapped around the front spar of the elevator. The rudder is now assembled. This control surface can also be covered prior to attaching to the fuselage.

The two wing halves are assembled with the plywood spar joiners cemented to the spars. Insert ribs W1 in place. The wing is now ready for sheeting. Obtain 6" wide sheet if possible for this job. Sheet each half separately, using plenty of cement at the center section. A slow-drying cement is recommended for this work. After the wing has been sheeted and the cement dried thoroughly, trim and sand to its smooth outline. The fuselage planking is now cut away to receive the wing. Use a template of rib W2 for this purpose by tracing it onto the planking of the fuselage, then cutting away to that line. The top portion of the fuselage bulkheads F6 and F7 will have to be cut away to receive the wing. With a little additional trimming and fitting, the wing should fit snugly. Now cement wing permanently in place in fuselage.

The engine nacelles are assembled in a manner similar to the fuselage. Use a good grade of hard wood for the engine mounts. Assemble the nacelles using the $\frac{1}{4}$ " square balsa to hold the formers in place. Glue the engine mounts in place with Weldwood glue. Mount the main gears to formers N4 using "eye" or "J" bolts. Make the fuel tanks to fit the space between bulkheads N-1 and N2. The tank in the inboard nacelle can be made slightly smaller to cause the inboard engine to cut out sooner than the outboard, thereby assuring safer single engine landings.

When the tanks have been installed, plank the nacelles with the planking strips. The rear of the nacelles is made of soft balsa, blocks carved and sanded to shape. The cowl is carved from a balsa block also and hollowed to fit the engine. After the cement has dried trim the planking to allow the nacelle to fit onto the wing as shown. This joint can be made by tracing rib W4 and W5 onto the nacelle and cutting and trimming until the nacelles fit securely.

The nacelles should fit the wing so the engine shaft will be parallel to the fuselage center line for best scale appearance. The nacelles can now be cemented in place, making sure that they fit snugly. Any space in the joint between the fuselage and wing or nacelles and wing can be filled in with scrap balsa. Carve the engine cowl as shown. Cut away to fit the engine. Top half of cowl can be made removable for engine access. Use favorite hold-down system.

The fuselage is now trimmed to receive the stabilizer and elevator. Before cementing the stabilizer in place, assemble the control horns to the control rod ends. Fair the stabilizer to fuselage juncture smoothly, since it is one of the outstanding features of this design. The rudder base fairing is carved to fit over the stab. After this fairing is completed the rudder is cemented in place.

The nose, cockpit and tail cone are all carved from balsa blocks and sanded to shape. The whole model is now sanded to a smooth surface with no rough edges. It is advisable to cement heavy cloth or fabric or even heavy gauze to the fairing of the wings; fixed tail surfaces and nacelles. This will prevent cracks from developing when and if the engines do not run smoothly or vibrate during flight.

The original model was covered over with heavy Silkspan before painting. This covering bonds the planking and makes an excellent base for a professional looking finish. The fuselage and other compound curved surfaces such as the wing and tail surfaces, can be covered over with sheets of paper. Apply sanding sealer to this covering at least three or four times with sandings in between coats to remove any noticeable overlaps or joints in the paper.

Before painting the model, apply several coats of clear dope to bond the whole skin surface. Allow this last layer of clear dope to dry for several hours before spraying the colored dope or lacquer on. The original model, like the original plane, was colored olive drab and gray. The nose section, pilot's cabin, and tail cone are painted silver to resemble the real plastic enclosures. Olive drab striping can be used to simulate the supporting structure of these "greenhouses."

Apply the U.S. Army Air Forces insignias made from Trim-Film decal in place to finish off the trim of the model. The control surfaces and flaps can be inked or doped on to add more detail. My original model had "ZOMBIE" painted on the side of the fuselage—just like its prototype. If you desire, you can trim this model to look like any of the thousands that were flown. Fancy comic pictures, purty girls, bombs and Maltese crosses can be painted on the fuselage near the pilot's window to add still more color to the plane. Install 3" pneumatic wheels on the main gear and a $2\frac{1}{2}$ " pneumatic wheel on the nose gear.

Fuel-proof the plane and cowlings well with several coats of good fuel proofer before attempting to run the engines or flying. It is advisable to put drains in the lower half of the engine cowlings to allow for any overflow of fuel or oil drainage to flow out of the cowlings. The original model used four-bladed propellers, like the real plane. This assembly was made by splicing the two 2-bladed props together. However, as nice and realistic as these props may seem, they are kind of hard on the fingers and hands. For practical flying, use regular two-bladed propeller recommended for your particular engine.

This model should be flown on 70-foot lines of at least .014 wire, .016 allowing for more of a safety margin. Make sure that all lines and connections as well as linkages are strong enough to withstand the heavy loads that may be imposed upon them—consult the A.M.A. book of regulations for approved splices and joints!

Although this model has taken off from grassed areas and landed on them, concrete or packed and leveled dirt areas are recommended for smooth, realistic take-offs and landings. The plane handles very well and even "kiwi" pilots should be able to fly this model since it is extremely stable and not sensitive to the controls.

Scale Notes: This model is of early B-26B "short wing" series. Modifications came so thick and fast in the hectic days of 1941-42 that it is difficult to sort out all the details. The later B-26B's were built in plants other than Martin in Baltimore. Some of these incorporated modifications that were also added to C-D-E-F and G series.

Most notable differences between early "B's" and later models include: wingspan increased from 65 ft. to 71 ft. All tail surfaces increased in size. Slotted flaps added. Carburetor air scoops on top of engine nacelles increased in size. Fixed nose guns added, and four pack guns mounted on fuselage side ahead of bomb bay. The flexible tail guns were changed to small power ball turret.

Naturally, armament combinations varied according to mission; some versions were fitted for external bomb and torpedo carrying. External markings were many and varied. Most models of the early "B" series were used in training and carried typical marking shown on the plans. The few aircraft used in combat did not carry much more than standard insignia and names on nose. Some had large two-digit numbers superimposed over the serial number on the vertical tail.

Later in the war when B-26's became more numerous, many distinctive squadron markings appeared. Large block letters were carried on fuselage side below turret. Typical are PN-V, FR-V and X2-A, with first two letters ahead of insignia and single letter behind insignia.

Modelers may like to add such markings to their model, although the markings were not used on the same series of the aircraft. Late model B-26C(D) etc. or "big wing" series, with modifications outlined above were mostly finished without camouflage in natural aluminum color. Dark green anti-glare paint was applied to fuselage nose and top inboard quarter of nacelles.

Many of these aircraft carried the "invasion" stripes used during and after D-day offensive. These stripes were about two feet wide, three white, two black alternately. They banded the fuselage between wing and tail, and the wings just outboard of the nacelles. Fuselage markings were large black figures used in three figure combination mentioned above.