

Bellanca Cruisemaster

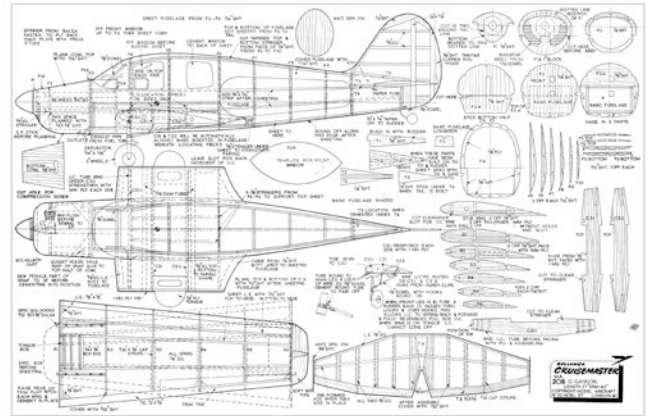


A Realistic Flying Scale Model of an Interesting Prototype. Designed to be Powered by one of the popular .5 c.c. engines by Geoffrey Gannon.

The Bellanca Cruisemaster was developed in 1950 from the Bellanca Cruisair to meet requirements of a 3/4 seater personal or executive light plane. At the time it came on the market, this aircraft had the best performance of its type, cruising at 180 m.p.h. and landing at a mere 43 m.p.h. It bears close resemblance to the familiar neat lines of the Cruisair, but has greatly improved power and control systems and as a model, it's neat, perky looks make it well worth building, for in average hands it should perform in a most realistic fashion.

Fuselage: Build two sides on plan from basic fuselage, making sure that small locating pieces are correctly spaced, as these will later give center section position, then join with crosspieces to give simple box fuselage. Add formers and bulkheads starting at F3. As soon as F4 is in place the top longerons of basic frame may be cemented in place. The engine bearers should now be fitted, after which the fuselage stringers can be added. Drill the engine bearers so that the thrust line is as on plan (zero), but make holes slightly larger than bolts to allow for a slight adjustment if necessary.

Next, assemble the lower half of the cowling in this order: cement bottom half of F2A to F3 and bottom halves of F2, F1A, and F1 in correct positions to lower bearer. Add 3/8 in. sheet cowl bottom, plus snap former (SF), after sinking and cementing female half



of press stud to the latter, then plank from bottom to SF with 1/8 X 1/4 in. strips, or larger if desired. The whole assembly may then be rough sanded to near shape at front only.

The top half of cowl is best built on the lower half as follows: Pin F2 and F2A in position and join them with the lower 1/8 in. sq. stringer, ensuring that no cement gets on lower half of cowl. Next, take the two triangular pieces of 1/8 in. sheet and, having stitched male half of press stud in correct position, cement edges where they will join F2A and 1/8 in. stringer and snap into position adding more cement on top.

When dry, the pins holding F2 and F2A can be removed and the cowl will stay in place whilst the stringers and 1/16 in. planking are added. Cement F1A and F1 together and cement to F2. When all cement is dry a knife edge will unsnap the top from bottom, and the top goes neatly back into position each time it is removed. At this stage the 1/16 in. dowel grill radiator should be added, as without it the cowl front is rather weak, also cut away where access to compression screw is needed.

Insert C.S.U., C.S.1 and C.S.2 into position, cementing well—C.S.U. in front of its locator and C.S.1 plus C.S.2 underneath. To these add the stub ribs and tongues, checking for correct position and incidence (zero). The fuselage can now be sheeted at sides and top as shown on plan, slotting the sheet where it is required to go over the center section spars to reach fuselage bottom. Then insert rubber band tubes by piercing sheet sides, cement well and sheet fuselage bottom back to F6. Do not sheet in C S spars until wings are built.

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The windows are fitted in the sides by cementing to the back of a section of the 1/16 in. sheet before this is cemented into position. Before cementing front window in place, the two pieces of 1/8 in. dowel are fitted and should be doped black, together with part of fuselage that the window will cover. It is advisable to stick front window in when all sanding has been done and the fuselage blown clean of dust.

Wings: Pin the bottom three 1/8 in. sq. spars to plan and the trailing edge, then cement ribs in position. Add the two top 1/8 in. sq. spars and insert the 1/8 x 3/8 in. leading edge into slots in ribs, leaving it projecting 1/32 in. in front on which to sheet. The wing box is now built. First, web the spars from ribs to R1 to R2, then cement in at the bottom a piece of 1/4 in. sheet that will be level with slot in R1. Cement to this the 1/8 x 1/4 in. box end. Insert loose, a piece of 1/8 in. ply through the rib slot to come to the box end, and cement another piece of 1/4 in. sheet to web and top of box end, then pack to top of spars with scrap balsa. When box is set the ply may be withdrawn.

Take wings off the plan and bind round the box, add the wire books and sheet with 1/32 in. where shown on plan, adding the 1/32 x 1/4 in. capping strips, and mm. ply end ribs and soft balsa tips.

The wings may now be fitted on to center section tongues, where they should be an easy slide fit. Fit (with the wings on) the stub wing leading

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