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Siebel Si 201

By Jack Headley

● The Siebel Si 201, the subject of our free flight model, was a design which never really got off the ground, if you'll pardon the pun. It was designed to a specification that was quite common before World War II, that of an "Army Cooperation" aircraft. There were three contenders produced to meet this particular Luftwaffe specification, the now well known Fiesler "Storch", the almost unknown Siebel 201, and the even more obscure Bf 163. This later project generally resembled the "Storch" but had a much more sophisticated wing arrangement, with flaps, slats, and even a variable incidence arrangement. No photographs seem to exist of the Bf 163, and it generally remains a mystery.

However, back to our Siebel. This was quite an unorthodox type, much effort being directed to providing the observer with a splendid view, with little or no obstruction...in fact he even sat in front of the pilot. However, in order to make use of this magnificent observation post, some reasonable flying qualities were desirable, and this is where a note of sadness creeps into our story. At low speeds the Siebel's flying characteristics were found to be not too good, and at the other end of the speed scale, tail flutter occured, no doubt due to too much flexibility in the tail boom. It was also discovered that the aircraft had an exceedingly small permissible C.G. travel, so at this stage the design was abandoned. I don't know what the German equivalent of "Well, back to the old drawing board" is, but if anyone had said it then I'm sure it wouldn't have got much of a laugh.

Luckily, we don't have to concern ourselves with things like C.G. travel on our models...the C.G. stays firmly in the place that makes the model fly best. Similarly, things like tail flutter can be fixed by sticking a bit more balsa here and there, and so a design which was a failure in full size can be made into quite a successful flying model.

Our all sheet model is very easy to construct, and is reasonably crashproof. The following construction notes will be of some help to the prospective builder.

Begin construction with the fuselage, which starts out as a 1/4 inch sheet of balsa 4 inches wide. Find a good strong piece of wood for this purpose. Mark and cut out the basic outline, the ballast hole, and the notch for the undercarriage block, then cement on the small extra piece for the engine nacelle. Next cement the 3/32 inch sheet doubling pieces on both sides of the fuselage and part way up the tail boom, but don't as yet cover up both sides of the ballast hole. Add the 1/4 inch triangular stock for the tailplane mounting, and the two small blocks on each side of the engine nacelle.

While all this is drying the undercarriage can be built. Drill two holes in a piece of 1/4 x 3/8 inch hardwood, bend the legs from 1/16 inch music wire and solder together at the wheel and the outboard ends. Jam these inboard ends into the holes in the hardwood strip, with a good coating of epoxy. The wheels should not be added until after the paint job is applied.

Drill the locating holes for the wing dowels, then cement these firmly into place. Make the engine mount, which is shown drilled for the Cox .020 Pee Wee. We suggest that you use this engine as it runs O.K. backwards (in fact mine usually prefers to run this way). Mount the engine on this plywood plate, then cut holes in the nacelle block to accept the mounting screws and nuts. Apply cement liberally to the plywood and all around the nuts, and glue into place on the nacelle. Put this on one side to dry, and we can begin the wing construction.

Cut out the required ribs, and carefully drill the two root ribs for the wing panels from 3/32 inch sheet, which should be reasonably hard but bendable. Pin down the wing ribs to the plan, and then cement the wing panels into place. If the wing panels won't bend too easily, wipe the top surfaces with a damp sponge, then bend to shape. Note that the root rib should be angled to allow for the wing dihedral. The wing struts are made from 1/4 x 1/8 inch hardwood, and should be made slightly oversize initially, then cut to the correct length on final assembly.

While the wing panels are drying it's a good idea to remove the engine from the nacelle, which is where we left it, and this will prevent it getting clogged up with sawdust, which is definitely a no-no! Now to the tail assembly. The various pieces are cut from lighter weight 3/32 inch sheet, which above all should be free from warps. After a good sanding cement them into place. Note that a small rudder tab is required, and also an elevator. These items are attached with hinges made from scraps of tinplate.

The wings should now be dry enough to be cemented into place on the fuselage, using the two locating dowels, then the wing struts can be cut to their final length and cemented down. Two small balsa blocks fit over the struts at the fuselage end to provide additional anchorage.

Now for the balancing. Put the engine, prop, and wheels into place temporarily, then add lead to the ballast hole until the C.G. comes out as indicated on the plans. Since the addition of the final finish usually moves the C.G. back some, it is best to balance the plane nose-heavy at this time to compensate. When the correct balance is obtained cement the remaining piece of 3/32 inch over this cavity, and this completes the construction.

Sand well all over, rounding off the corners of the fuselage, and the wings then apply the desired finish. Our prototype used a standard Luftwaffe camouflage of around 1938 vintage.

Flying the model should present no problems, assuming that you've first checked and corrected any warps that have crept in. Check again that the C.G. is where it should be, then try a low powered flight. If this goes O.K. then try a little more power, but remember that this is supposed to be a slow flying observation aircraft, not an intercepter, so stay with low power, and just let the model putter around the flying field, it's much more realistic this way. ●

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