

Maxford USA Bleriot XI

While the Bleriot XI is not the type of airplane that I would normally fly, our club flies from the Old Kingsbury Aerodrome (OKA) facility and they have a full scale Bleriot XI replica in the hangar which I have seen fly on 2 occasions. That intrigued me and made our field an appropriate place to fly and review it.

Besides the ARF, I received the following additional items which are available for purchase separately on the Maxford USA website: The suggested U35425 motor and 60 Amp speed control, the seat and pilot and the Anzio



3 cylinder dummy engine. There is also an optional set of wire spoke wheels which are not included in the review.

I estimate that I have between 12 and 15 hours in the assembly. I followed the assembly manual fairly closely and will detail my deviations in later paragraphs. The components are quite complete and the rear of the fuselage which is "open air" is constructed of carbon fiber. Both the main landing gear assembly and the tail wheel assembly come assembled and ready for installation. That is a good thing because they are fairly intricate with many small parts and springs. The main gear has individual suspension and the tail wheel is both shock absorbing and steerable. (There are different variations of the full scale Bleriot XI. The one at OKA has a tail skid and it is a true wing warper where this model has ailerons to make it easier to build and probably more responsive than if it was a warper!)



I discovered that Item 2 and 17 in the manual are redundant but that is not a problem. They tell you to attach EZ Link connectors to the arms of elevator and rudder servos. The connectors provided are the typical type found with ARF models requiring a thumb screw nut be screwed up to the connector. I tightened these thumb screws as tight as I wanted them so they would allow free movement of the connectors in the servo arm and then I secured the thumb screw with thick CA. (Be careful not to glue the connector to the output arm!)

Assembly of the twin elevators to the horizontal stabilizer is the first major project and it resulted in my first problem. There is a CF torque rod that you put through the horizontal and while doing so you put the plywood control horn in the center as you feed it through...that is pretty straight forward then you glue the two elevators on with either epoxy or CA. I opted for thick CA but you must be careful to not glue the rod inside the horizontal while gluing on the elevators or while gluing on the control horn. I

put the glue in the tube inside the elevator and a little on the torque rod. When I pushed the rod into the tube it pushed glue out the other end of the tube in the elevator on both sides leaving a discolored spot on the covering. I was disappointed but frankly I cannot figure another way to put it on and insure its security without having a little glue push out. So in anticipation of a little glue coming out I would leave the horizontal bottom side down on your bench until the glue dries. That way any glue that does push out will be on the bottom of the airplane where it is not as readily seen. I assume that there was a lot more than that wrong with the full scale ones back in 1909-10 so I am okay with that.

When you glue the control horn to the torque rod it is to be centered in the opening in the horizontal. That was easy but later during assembly I saw that the push rod for the elevator ran through the formers on the side of the fuselage and therefore a 90 degree bend had to be made to get the control rod to the center of the elevator. This is a scale, slow flying model and I am sure it will be fine but on higher performance models this procedure would induce flutter and probably result in the loss of the aircraft. This control horn could have been placed to the extreme left of the opening in the horizontal which would result in a less serious bend in the wire portion of the pushrod. Here is my first change from the manual: It calls for gluing the wire pushrod ends to the CF pushrods and covering them with the provided heat shrink tubing. I do that regularly on indoor models but felt a little skeptical on a 4 ½ lb airplane before I glued the wire with the z bend I roughed it up with the edge of a file and tack glued it. Then wrapped the joint with dental floss and soaked it with thin CA before shrinking the tubing...maybe not necessary but I feel better!



The horizontal stabilizer is held to the fuselage with machine screws and lock nuts. As I tightened the screws I felt like the nut was compressing the wood too much so I placed a washer under the head of both screws. Simple and inexpensive but again makes me feel better.

Before permanently mounting the motor mount/landing gear assembly to the airplane you complete most of the assembly so that you can check the CG. After installing the motor, speed control, battery, dummy engine and Hitec HS 55 servos I checked the balance and discovered it was a tad tail heavy. I moved the landing gear assembly forward about ¼ inch and felt comfortable. Then I permanently mounted the motor on some aluminum 5/8 inch spacers from a previous project and drilled the 4 holes to attach the landing gear. I had some trouble with the provided screws and lock nuts stripping the heads so I replaced 4 of the bolts with 4-40 socket head bolts. The provided ones would have held it but I didn't like the appearance of the Philips head screws after I butchered them getting them on. I strongly recommend that you purchase the dummy engine because it makes the airplane look better and it provides more weight in the nose of the airplane with something that is more acceptable than just dead weight.



The upper wing-wire-mounting braces have a 4 3/4 inch metal rod between them for attachment of the wires. The one in the kit was not threaded properly on one end. For expediency, I used a piece of 4-40 all-thread and nuts which worked just fine but I have talked with Maxford USA and they would have gladly replaced the part had I called.

Rigging the Bleriot is a little daunting but it certainly makes the finished model look more realistic. You have the option of gluing the wings on or using the rigging to hold the wing so that it can be removed. If you have the ability to haul it completely assembled I would glue the wing on but because I wanted the "complete experience" I used the rigging to hold the wing secure to the fuse. The wiring on the wing is exactly as detailed in the instruction manual and as I said it sounds a little tough as you read the manual but just be persistent and it will suddenly make sense and you will have it completed. It truly looks better with all of its flying wires so don't miss this little detailing effort.

If you want to remove the wing, Maxford USA recommends unhooking the ends of the springs from the upper wing-wire-mounting braces; then, with slack in the simulated wing wires and with the lower ends of the wing wires and the aileron servos still attached, slide each wing panel away from the fuselage, off from the wing rods, and fold the wing panels alongside the fuselage. Reverse this procedure to resecure the wings for flying.

Since I had a full scale to look at, I decided to modify the rigging on the rear of the wing to more closely represent the connections on the full scale while making the wing completely removable. I know you purist scale guys will find my efforts amateur at best but hey I like the way it looks and didn't mind the extra work.

Rigging in the rear of the fuselage and to the horizontal stabilizer is cosmetic but surely adds to the realism of the finished product! Don't let the pictures and description intimidate you....it is really simple and worth the effort.

The optional pilot and seat also add to the realism. It fits tight so don't give up just keep turning and twisting until you get it to drop in. A 2 piece installation kit for the seat is provided and is glued between the rudder and elevator servos leaving room for their smooth operation. However, gluing the pilot and seat to that installation kit makes servicing/inspecting those 2 servos impossible without breaking the pilot out. My last modification is that I put a 1/8 inch piece of 3/16 inch hard wood between the pilot and the seat and another piece behind the seat so the seat was sandwiched between them. Then I put a piece of lite plywood in front of former 4 so that the pilot with his plywood backed up to it. I painted the wood in the seat with him black so you couldn't tell it from the seat and left the lite ply natural so it matched the other fuselage parts at the rear of the enclosed section of the fuse. I simple put a servo mounting screw through the lite ply into the back of the seat so now I can remove the pilot and seat to work in that area.

The finished airplane with a 4 cell 3,200 mah battery weighs 4 lbs 9.5 ounces...that is only 3.5 ounces over the listed weight. I opted for the aileron version which adds 2 servos and extensions to the system. That plus my rigging modifications probably explain the slight increase. I installed my Spektrum radio system and set up control throws on low rate about where the manual directs and then gave myself some more movement in the event I felt under controlled.

The motor was impressive drawing 50 amps and providing 700+ watts of power.

I went to OKA on a work day for the volunteers who work on the antique airplanes and cars. I wanted a picture of this Bleriot with our big one...The engine isn't the same and as previously mentioned the tail skid and ailerons are different but I just wanted to get that photo! I couldn't pull the full scale out of the hangar because of other aircraft in the way so the pictures are not as nice as I had hoped but it was neat to have the 1/6 scale Bleriot with the big one.

I rechecked controls before taxiing out for the take-off: I knew it wouldn't fly like my other airplanes but I do have a Senior Telemaster that my father built in 1976 and an old 1939 Goldberg Comet Clipper free flight converted to 3 channel so I was ready for just about anything.

Steve Koelle, who is our club photographer and was my Videographer while I was on the Executive Council for the AMA, agreed to video the first flight and do some stills. The construction photos are mine but the field shots and videos are thanks to Steve. I have to admit that the first flight was aborted just after take-off due to a poor performing battery getting the airplane only about 10 feet high. The Bleriot slowed and I had to land. Fortunately OKA has a lot of space and nothing was hurt beyond my pride. That will explain why you may notice some editing on the video.

The wind was a little higher than I hoped at about 12 mph quartering from the right. I applied throttle slowly hoping to imitate the take-off of the full size but to my surprise the Bleriot jumped in the air faster than I expected and began to climb out. It took some down trim but was otherwise properly rigged.

It performed really well, actually much better than the full size, and I was able to combat the headwind too. I made a photo pass and a landing before taking any other risks with the airplane. On the second flight I did perform a very nice loop which isn't scale for that aircraft but I just had to do something aerobatic. It has a flat bottom rather than the scale under cambered wing so it will likely roll and fly inverted although it is not intended to do those kinds of things. It looks best just cruising along with its flying wires singing in the wind!

It turns fine with aileron but makes nicer turns with coordinated rudder. If you are uncomfortable with that I would recommend using the computer on your radio and mixing about 20% rudder with the aileron...that will make it look like you are a superb pilot. I have to admit I had a smile when it landed and those big shock absorbers on the front let it down gently. One of the volunteers out to work on the OKA airplanes was watching and commented that the gear was realistic and the performance exceeded that of their Bleriot.

I am happy that I did the review and would recommend the airplane to anyone with interest in pre WWI aircraft. It is an excellent start that can be detailed as much as a scale buff wants. I liked the power to weight ratio provided because I could fly it scale but had the power to fly it like a modern model airplane if I needed it. Everyone who saw it loved its overall appearance and its realistic flight performance. If you build one make sure you have a couple of batteries because you will want to fly it more than once without waiting on batteries to charge.



Go to their web site and order one at: <http://www.maxfordusa.com>.

HITS:

- Scale appearance and flight performance.
- Excellent motor and speed control which provided well beyond scale performance and enjoyable flight.
- Functional shock absorbing landing gears.
- Optional pilot, seat and dummy engine. (I wish I had used the scale wheels which are also optional just to add to the realism.)

Misses:

- Some of the screws in the provided hardware were too soft and the heads were easily stripped and marred.
- Bolt at upper wing-wire-mounting braces improperly threaded.
- Rigging described in the instruction manual precluded complete removal of wing. (However, for most people, an airplane of this size will not need to have its wing removed for transportation or storage.)

Jim Rice