



INSTRUCTIONS FOR BUILDING AND FLYING THE "BUCCANEER - 48"

The "BUCCANEER-48" is the 4th. airplane version of the famous "Buccaneer" series of gas models. The model is simple in structure and design and anyone who has a little experience in building rubber powered models will have no difficulty in constructing this plane. The plans show the installation of the Ohlsson "19" motor and the method of installing the landing gear. The plane should not weigh more than 24 oz. complete. The model has been carefully designed and we do not recommend any structural changes.

Before beginning the construction of the ship, look over the plans and pictures to obtain a general idea of the construction. If any difficulties appear, try to construct the model as far as possible. Most of the construction will become clear as your work progresses. In all cases, take your time, making sure that all parts are accurately cut and shaped.

Before beginning the construction of the ship, select a flat board about three feet long and 12 inches wide for layout work. A table top or work bench will serve the same purpose. It is best to have all your tools close at hand. They will need a sharp razor blade, hand sander, hand-drill, file, sanding iron, knife, rasp blade and sandpaper.

The FUSELAGE: The "CRUTCH" of the fuselage is constructed first. The top view of the fuselage is used to lay out the $\frac{3}{16} \times \frac{1}{4}"$ balsa members. Select the two straightest and most even pieces for the main members. Try to have them balanced in weight as closely as possible. Use the file or rasp to hold these members in position on the drawing, but do not cross sandpaper. Work from the rear of the fuselage forward to Station No. 2. Next cut out and cement balsa No. 2 in position with the leading gear horn and struts to the fuselage. The landing gear is held in position by cementing grooved basswood blocks to the plywood bulkheads. Cement firmly, supporting several coats of cement.

Wing covering: The wing and tail surfaces. Allow a border of about one inch. Slice this border at regular intervals and fold over, cementing them well to the framework. In all cases, no larger amount should appear in the covering. All edges should be well cemented after the ship is covered.

The wing is covered in three sections, with the top and bottom covered separately. The outer sections use the outer sections of the wing. The inner section is covered with the inner section of the wing. The wing is covered with the inner section of the wing. The wing is covered with the inner section of the wing.

After the motor mount has been attached to the fuselage, cut out the bulkheads and cement in place. Do not notch bulkheads until you are ready to attach the struts. $\frac{3}{32} \times \frac{3}{16}"$ balsa stringers are used on the fuselage. Cut each notch for the struts as it is laid in place. In necessary places, however, follow the curves as shown on the printed wood as closely as possible.

The tail part of the rear of the fuselage is $\frac{3}{16} \times \frac{1}{4}"$ balsa. Form the tail end from $\frac{1}{32}"$ diameter wire and stick it to the tailpost with silk thread.

The fuselage is covered with strips of $\frac{1}{20}"$ sheet balsa back to Station No. 4. This will make the nose of the ship rigid and will correct holes in the covering when handling. The strips should be fitted together as closely as possible, trying to avoid cracks or holes in the covering as much as possible. Small cracks or open spaces in the plating will not show after the fuselage is covered with bamboo paper.

The stabilizer and rudder should be covered when completed. The tail unit is covered with bamboo paper. The rudder is cut off and cemented to the fuselage with rubber bands. The bands extend over the wire of the crutch to give the stabilizer positive incidence.

The tail surfaces are of simple construction, the drawings being self-explanatory.

The motor mount should be made on a case day, using enough fuel for an engine run of about thirty seconds. A motor that may be used to cut the ignition after this period of time. The wing should be attached to the fuselage with rubber bands. The bands extend over the wire and around the wire horns.

The end of the fuselage with the Ohlsson "19" motor should balance exactly or be slightly nose heavy with the wing in the position shown on the drawings. However, it is better to have the ship slightly nose heavy rather than tail heavy on the first flight. When running the engine in the ship, make sure that the vibration does not shift the motor position.

The model should show no signs of steep banking under power unless the wing is swept back. To correct the wrong construction, a slight banking can be eliminated by warping the rudder and by shifting the wing to one side to increase the area on the side that banks in.

If the model should be nose heavy, warp the rear of the stabilizer upwards slightly. If the model should be tail heavy, warp the rear of the stabilizer downwards slightly. For other details, we advise that you use the instructions and recommendations of the manufacturer. If this does not give satisfactory results, experiment with different diameter propellers until you obtain the best performance.

FLYING: The first test hop should be made on a case day, using enough fuel for an engine run of about thirty seconds. A motor that may be used to cut the ignition after this period of time. The wing should be attached to the fuselage with rubber bands. The bands extend over the wire and around the wire horns.

The Ohlsson "19" motor should balance exactly or be slightly nose heavy with the wing in the position shown on the drawings. However, it is better to have the ship slightly nose heavy rather than tail heavy on the first flight. When running the engine in the ship, make sure that the vibration does not shift the motor position.

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NOTICE: BERKELEY MODEL SUPPLIES will be glad to help you with any difficulty in constructing this model and would appreciate reports of exceptional flights or contest records.

THE "BUCCANEER - 48"
 GASOLINE POWERED MODEL AIRPLANE
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