

VALUE PLANES SEAGULL - ADDENDUM

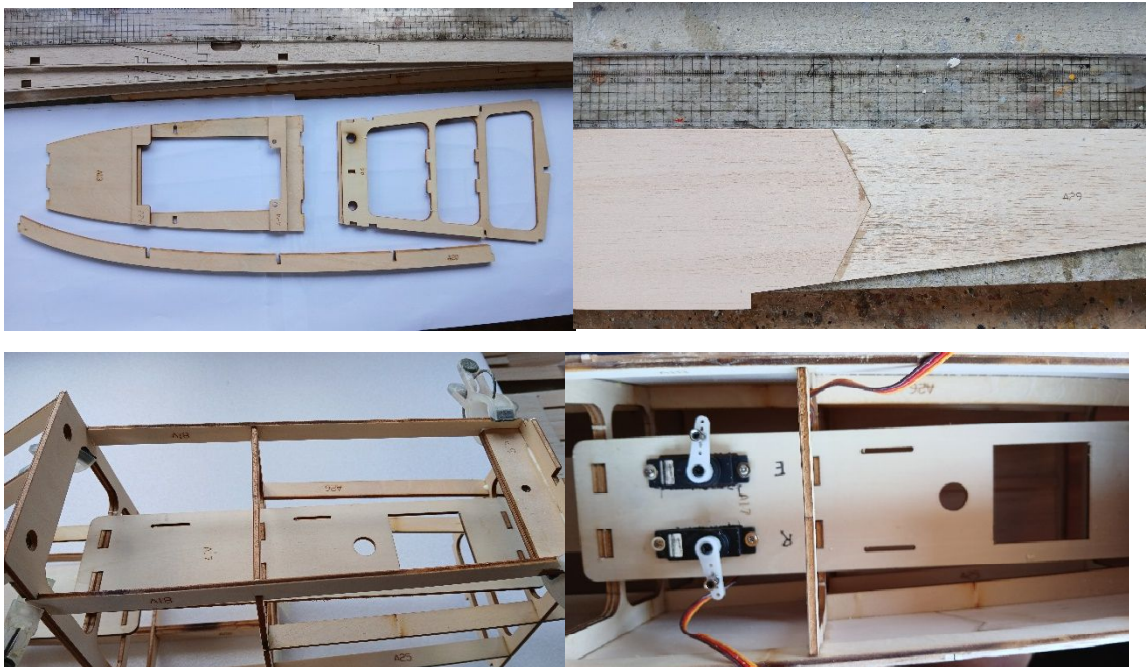
The online build instructions provided by Value Planes are annotated in Stages, referred to below. Please read them in conjunction with this addendum.

<https://www.4-max.co.uk/pdf/Value-Planes/ValuePlanesSeagull1570mmBuildingInstructions.pdf>

The fit of nearly all the parts in this very complete kit is so good that a dry fit is quite difficult, but once some glue is applied to the surfaces it acts as a lubricant and the parts slide together quite easily. A gentle tap with a hammer is sometimes useful to make sure ply parts are properly fitted.

FUESLAGE (Stages 1 – 29 in the online instructions)

The build is straightforward and easy to follow using the online instructions and the exploded structure diagrams included with the kit. If the cut-out for the servos in the servo/RX tray A17 is too large, cut two new holes in the plate for your rudder and elevator servos. Take care when laminating parts together that they are in the correct relative position. Make sure the top of the fuselage side sheets are along a straight edge.



TAILPLANES (Stages 60 – 70)

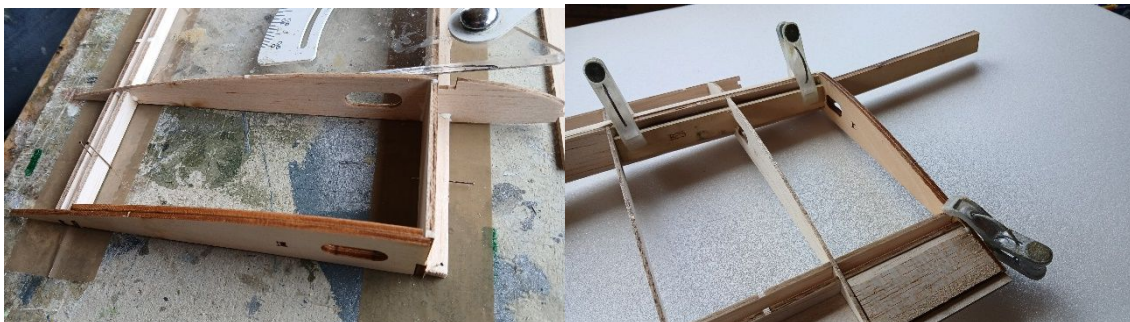
They are easy to build even without a plan, just follow the online instructions. Sand the rudder and elevators to a 1mm TE and the LEs and tips to a rounded section.

WINGS

The online instructions are incorrect. Despite there not being a plan, the wing can be built square, but you will need a set square to do so. Here are most of the parts



Laminate the dihedral braces B25 together. Cut new access slots in ribs B1, B3 and one rib B4 per wing to accept the 6mm wide brace as a sliding fit behind the main spar to which it will be glued. Cut an access slot in the same B4 to accept the ply vertical webbing B13, which will be glued to the front of the main spar. The front part of rib B1 will also need to be cut to fit round B13. This can be done later. This is how not to do it. The brace cannot be fitted. This is how to do it, with R1/2/3 cut out to fit.



If you are going to fit the aileron servos into inner rib R5 rather than the wing servo/float mount plate, laminate R5 to a lite-ply or similar duplicate R5 and cut out a section for the servo.

Glue a strip of the 6x8mm balsa to the lower front of the vertical webbing/main spar B10 and pin down the assembly to a board, ensuring that it is perfectly straight. Place the rear spars B7 and B8 on the board and dry fit two B4 ribs near the ends of all three spars. Use a set square to ensure squareness. Glue all the balsa ribs in place over the spars. The ribs B5 (with doublers B6) fit in the centre two places, with the doubled "servo" B5 in the inner position. Glue the false LE B14 in place.



Add the upper 6x8 balsa spar and glue in place the dihedral brace B25 – you may want to use epoxy for this task. Glue in place the lower trailing edge sheeting, add and sand to profile the B9 balsa blocks at the root and between the B5/6 ribs and the TE of the lower sheeting to a sharp edge. Then add the upper trailing edge sheeting. At this stage, wedge up the tip TE by 5 or 6 mm to form some washout while the glue dries.

Add the ply vertical webbing B13, making sure that the hole for the wing dowel is nearer the bottom rather than the top. You will have to cut a 3mm slot in both the lower and upper balsa 6x8 spars to accept B13.

The slightly tricky part next is to add the front of B1 (cut to clear B13), the front wing dowel plate B11 and the half rib B12. There is an excellent photo of this at Stage 41 in the online instructions. An easier option is to do this to both wings when they are joined together at a later stage.

Complete stages 43 and 44 from the online instructions. Remove the wing half from the board and add the lower front D Box sheeting B21, lower cap strips and lower centre sheeting.

Repeat the process for the other wing half and join the wings together using the dihedral brace as a guide.



When this is dry, add the Stage 41 riblets, front wing dowel plate and the upper D box sheeting and cap strips, one wing at a time, wedging the tip TE again to ensure the washout remains constant. Add the servo extensions and Y-lead as needed. Only add the front part of the upper centre sheeting once you are certain that the servo Y lead and the power wires (see later) can be threaded through as necessary.

Complete Stages 49 and 50 for the tip blocks B20 and Stages 51 to 55 for the ailerons. Note that the 6mm aileron LE provided is too thick and only needs to be 3mm on both the new wing TE and the aileron front edge.

Cover the underside of the wing with heat shrink film of choice.

The ESC can be secured under the wing centre section rather than on the servo/RX plate. Doing it this way reduces the connections needed on assembly to just the throttle and aileron leads. Make up a short extension for the battery connection. This will slide easily into the battery bay when you go flying.



WING FLOATS (Stages 77-84)

A very simple process and the floats are very effective on the water. At Stage 83 add a strip of 6x6 balsa either side of the float strut, above the plate, for some reinforcement. Cover the floats, legs and plates with HSF.



MOTOR PYLON ASSEMBLY (Stages 85-89)

Complete Stages 85-87 as shown, marking the mount F1 with your motor back-plate holes. Perhaps add some fairings to the LE and TE to make it more streamlined. The power wires just hang in the breeze. You will need to make up a power wire extension from the ESC to the motor. The instructions call for an up-thrust angle of 5 degrees: you may wish to add right thrust of 2 degrees. The thrust angles are best measured at Stage 89 before the motor is screwed to the mount plate and the epoxy has set. At this stage the front centre section sheeting can be added, forming them round the motor pylon and the power wire extensions.



FINISHING (Stages 90 -94)

Set the CG at 25% wing chord to start with. Suggested control movements for relaxed flying:

Ailerons 10mm up, less down, say 5mm. Elevator 10 up and 5 down, Rudder 20 each way

FLYING (The last Stage!)

Although test flying off grass is possible, the high thrust line just pushes the nose firmly down. You may have more luck...on the water, taxi the model away from the shore and allow to settle directly into wind. Apply power gradually with slight up elevator and it should track straight and lift off on $\frac{3}{4}$ power. Flight characteristics are normal and the model is fun to fly and can do the usual mild aerobatics. With the motor, prop and battery suggested by 4-Max half throttle is plenty for sustained flying for 10 minutes or so. Alighting back on the water is easier than landing on land. Just line up into wind, reduce power to $\frac{1}{4}$ throttle and control the descent with elevator. Touch down on the step and tail, not the nose, or it will bounce. Steering at low throttle and full up elevator is possible without any water rudder. In windier conditions a burst of throttle to help it get round to off-wind may be necessary, but at all costs avoid extended increases in power or it will take off again!



Many Thanks to Mike Roachford for this addendum