



AVIATIONTOYS.NL GRUNAU BABY KIT.

Grunau Baby fuselage building instructions.

We start with the plywood parts, sheets plywood 1,2,3 will provide these. the plywood strips we also need. Later we will need balsa parts from sheets balsa 4,12 and 13.

First we make the fuselage 'silhouette' according to the plan from parts F1, F2, F3, F4, F5, F6 and F7.

Next are the formers 1A,2, 3, 4, 5, 6, 7, 8 and 9. Make sure they are glued on the "silhouette" absolutely straight and square. Next are the parts HF1 and HF2, glue them together as shown on the plan and pictures. Now we take the "silhouette" with formers off the building table and we slide in parts HF1 and 2 in the slots on the inside of the fuselage formers. It is a bit of fiddling, be gentle and make sure it is perfectly placed into the slots before you apply glue. Take a close look on the pictures, part HF1 is glued against former 1A, just below a notch.

As you have noticed, we have another set of formers. These are for the right side of the fuselage. Slide these into place and make sure they line up perfect with their cousins on the left side. Now we need the plywood stringers(4x) which are glued into the slots in the formers. Please have a look at the pictures for the correct position, especially at the tail side. Don't forget the two shorter pieces on top of the nose section.

Before we glue part C2 we have to cut out some plywood in the cockpit section, as on the pictures. Now glue part C2 into place.

Now glue part WB(left and right) into place. Make sure left and right are exactly even.

Next step is the wing base, made out of balsa parts WR1 and WR2 (2x) These parts are located in balsa sheet 4. WR1 has a slot for the servo wires, these are glued against the plywood part F3. Balsa parts

WR2 are glued against balsa parts WR1. Make sure the holes line up perfect.

Before we glue part C2 on part 4A, sand part C2 as shown on the pictures.

Nose block and battery holder. This is made from parts N1, N2 and NC (balsa). For the battery holder we need parts 1, 1B and 1C. On the pictures you can see the steps needed before we glue these units together. But first let these parts dry and continue with the next step.

Wing strut mounts. You have to glue parts FSB and FS together, then put in the M2 nut and glue part FSF on top. You can see these steps on the pictures. Also on the pictures you can see how these mounts need to be glued into the fuselage frame.

Now we can also glue parts 4A and C2 into the cockpit, against formers 4.

The tubes for the steering lines are next. Please have a look on the pictures for the correct position. Take extra notion for the tube for elevator and rudder; they should line up with the slots that are in the fuselage planking.

Parts WR1 and WR2 are now dry. Glue them into place (left and right) onto parts WB and F3. Make sure that the holes line up perfect. WR2 has a line, under this line we have to sand away some balsa. keep sanding until the balsa follows the shape of plywood part WB. take a look at the pictures and take your time sanding.

Time for planking the fuselage. These parts can be found in sheet balsa 12. As you can see we start with the top side, left and right. Do the same on the nose section.

Before we go further with planking the fuselage we need to do the tow hook first. On the picture you can see how to bend the steel wire in the correct shape and how the hook should be placed. Glue with ca or epoxy. Fill up the area around the steel wire with 1.5mm scrap balsa. Both sides. The glue parts HRL and HHR into place.

Now we continue the planking at the bottom of the fuselage. Next step is to sand the planking as shown on the pictures, this gives a good and even surface for the final side planking. But first we glue in a plywood strip as reinforcement, please have a look at the picture.

Finally we can add the side planking. First slide in the tube for the steering rod through the slot, then glue the side planking into place. Take care to line up the slots which are in the stabiliser area. The edges that are visible need to be sanded away for a clean look. Take some scrap balsa to fill up the ridge/edge on former 4, the picture says it all.

As you can see the top of the nose and cockpit are open. Glue parts Nt and CT into place and sand the edges. At the tail, area for stabiliser, you can see the plywood stringers going through the slot in the side planking. Cut a piece away so the slot is clear. This slot is needed for the stabiliser so it can move up and down.

Next is the landing skid, it is made from a plywood strip(located in sheet "plywood 1", main skid) and two 5mm circles which are located in balsa sheet 8. Sand the skid at the nose side to zero for a nice fit to the fuselage, the pictures will show how to glue the skid on to the fuselage. Don't forget the tail skid(it is located in plywood sheet number 2) Next picture shows the position.

Now we have two carbon tubes and plywood parts WR2(2x) These WR2 ribs can be found in plywood sheet 2. The carbon rods need to be placed in the wingbed and the parts WR are glued against WR2. Sand down the excessive carbon as shown on the picture.

remember the nose block and battery holder? Time to glue these together, you can see how on the pictures. With some scrap balsa you can fill up the edges around plywood part 1 (former). Be precise when sanding these down, it will result in a nice fit on the fuselage. Time to cut off some balsa so it gets a rough shape, sand it down into shape so it follows the lines of the fuselage. A picture says more than a thousand words, so please have a look.

Wing struts.

We need the plywood parts WSF and WSW (located in plywood sheets 1 and 3), wing struts which can be found in balsa sheet 7. use a pin to puncture the side fuselage planking so the hole for the strut is clear. We need to sand the angles which the strut makes with the fuselage and wing, you can see it on the pictures. Once sanded the correct angle, we glue the fuselage side first, this is plywood part WSF. Now attach the wings to the fuselage, make sure they are well placed all the way against the fuselage/wingbed. Use the M2 bolt to attach the strut to the fuselage. place the plane up side down. Place plywood part WSW on strut mount in the wing. Now put the strut into place on WSW and glue it. When all is dry, take off the strut and sand it down as shown on the pictures.

Almost done, the tail is next.