

## Construction instructions for wooden kit

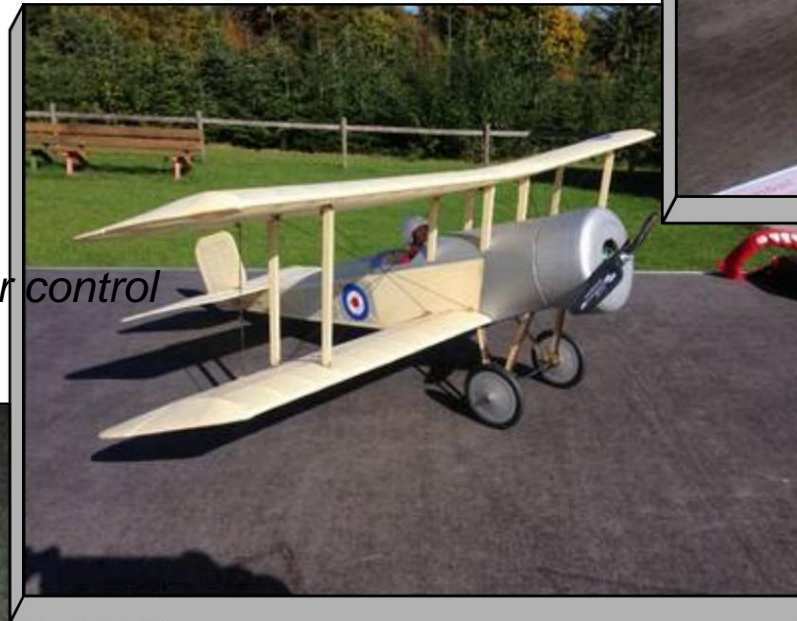
# BRISTOL SCOUT

### Model data:

Wingspan: approx. 935  
mm Flight weight: from  
950g Profile:

Clark - Y RC functions:

Elevation, side aileron and motor control



**We recommend the following accessories for building the model (see also [www.extron-modellbau.de](http://www.extron-modellbau.de)):**

*Extron Building Board, Building Board 900 x*

*300mm, # X5535 Hinge Slot*

*Set, # C5829 Mini Balsa*

*Planer, # C8891*

*Sandpaper File, # X5565*

*BINDAN Propeller Glue, # Metal clamps*

*50mm, # C4919 Crimping pliers, #*

*C8333 Fix It! Quick-release clamp,*

*# C4922 push pins*

*(50 pieces), # X3441 foil iron, #*

*C9758 protective cover*

*for foil iron, # X9983*

### Special accessories:

*Bristol Scout Drive Set, #5541*

*LiPo Battery Extron 2200-3S, #X6413*

*[4] Servo Extron E90, #X5606*

*MASTER GigaProp 6 remote control system, # C8802*

**extron**  
MODELLBAU

# Preface

*These building instructions describe the step-by-step construction of the model in key words and should also be sufficient for less experienced model builders to be able to build the model without any problems. Therefore, read the entire building instructions carefully before starting construction in **order to get an overview of the individual assembly steps**.*

*Of course, the enclosed construction plans are indispensable for construction, in which each individual part is shown, some of them on a 1:1 scale. Material-related dimensional fluctuations in the construction plans cannot be completely ruled out; the following applies here: the component is absolutely the right size. During assembly, plans should be protected with transparent PE film to protect against sticking.*

*All components are listed again in the parts lists.*

*Individual plug-ins and fits also prevent incorrect assignment.*

*You should always only remove the components from the boards that are required for the upcoming construction phase. This prevents unnecessary sorting and helps to keep an overview.*

*Gluing should be carried out with the adhesives shown in the photos, so it makes sense, for example, to “staple” with thin superglue and later “glue” it with wood glue. The additional weight we determined for this construction method is only for the entire model after it has dried about 35 g and provides significantly greater stability.*

***Please be sure to follow the assembly sequence described** and . otherwise it is not guaranteed that the sequence will change if the order is changed have the relevant components installed.*

*Despite precise laser cutting technology, material-related thickness fluctuations can make it difficult to connect. Please do not try to use force, slightly grind affected components to enable easy connection.*

*Motor frames with the corresponding hole pattern are included for the drive we propose. If other drives are used, these parts must be changed at your own discretion.*

*As usual, the drive battery is only attached with Velcro and can be moved to achieve the correct center of gravity. If the battery weight is less than around 190g, the nose of the fuselage must be trimmed accordingly with ballast.*

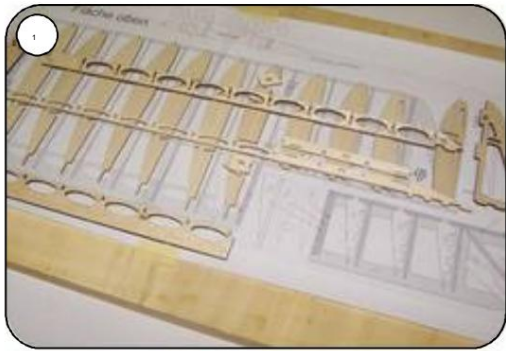
*Please be sure to pay attention to the setting values for the center of gravity and the rudder deflections given at the end of the construction instructions... it is better to set them a little more conservatively at the beginning.*

*Once you have the plane under control, you can do whatever you want in the air, the stability knows no limits even in the most extreme flight operations... and the Scout can easily handle even a somewhat rough landing thanks to its robust construction.*

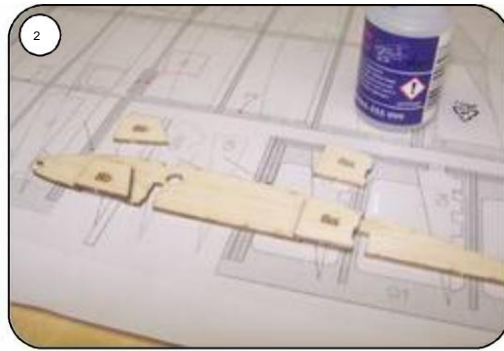
*Which decor you would like to equip your model with is up to you. You can contact us at any time about your individual decor wishes and we can also realize that for you.*

*All we can wish for you now is a lot of fun building and especially flying our Bristol Scout.*

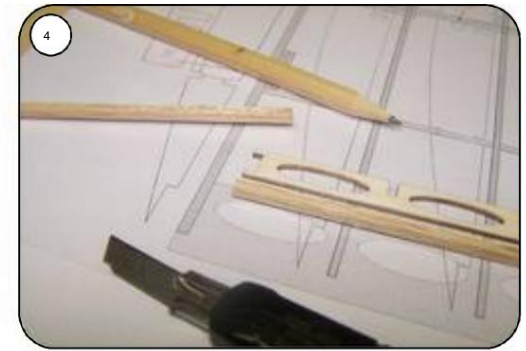
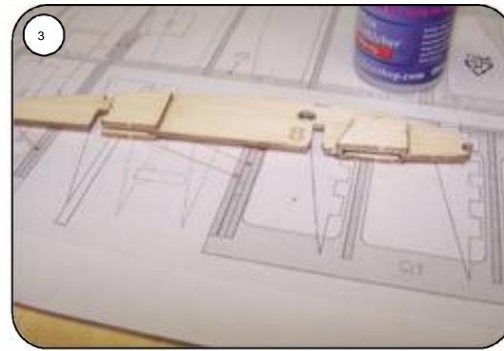
Publication of texts, images and technical documents only with the express, written permission of the Pichler company



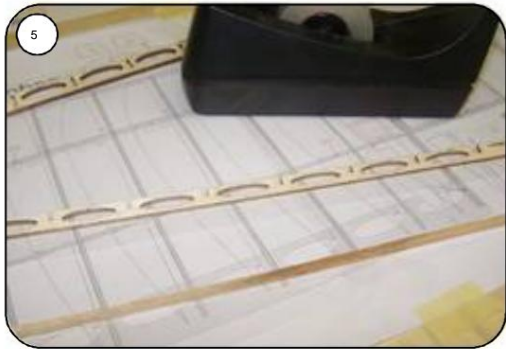
Remove pieces for one half of the area (in this case top/right) from the correspondingly labeled boards.



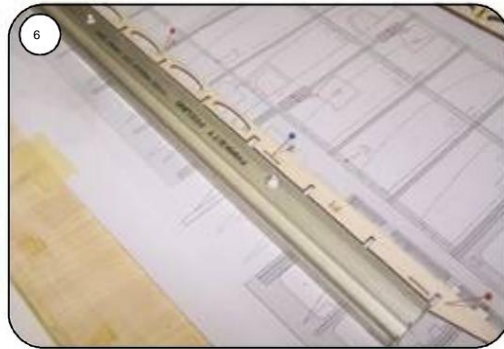
Close the pockets in rib 8 on both sides with the covers 8a + 8b for the strut connectors (position according to the construction plan).



Cut the lower spar strap balsa 3x3 mm to fit the comb spar F1.



Cover the entire length of the rear lower edge of the comb spar F1 with adhesive tape.



Align the comb spar F1 with a ruler and secure it to the building board with pins.



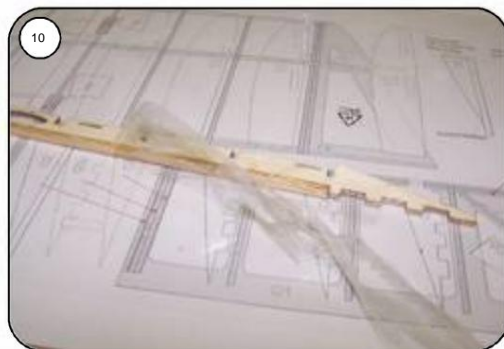
Place the cut-to-length spar strap on F1 and glue it together with a thin layer of superglue.



Glue reinforcement F2 to fit F1.



When gluing F2, pay attention to the position of the hinge slots.



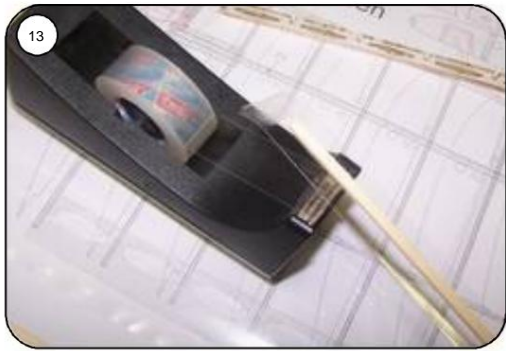
The adhesive tape strip can now be removed again.



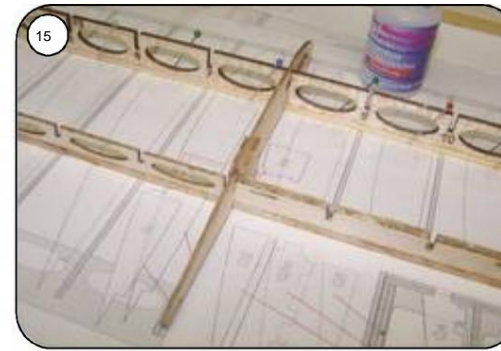
Insert rib 8 into the comb spar F1, align it according to the plan and carefully attach it.



Cut the lower spar belt pine 2x4 mm according to the plan. One millimeter excess can't do any harm.



Tape the entire length of the underside of the spar strap with a strip of adhesive tape. Align the spar strap on the construction plan and fix it with pins using the adhesive tape.



Place rib 8 together with the comb spar F3 onto the spar strap and align according to the plan, using seconds. fix.



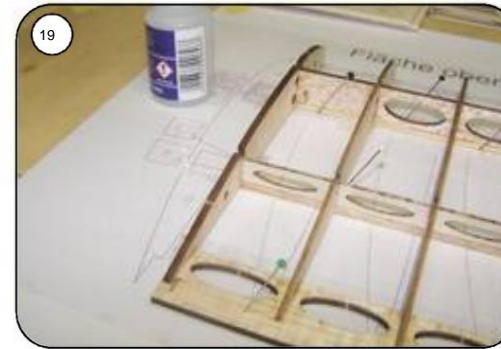
Insert ribs 2 to 7 and glue them in with Seku, while also gluing the comb spar F 3 to the spar belt.



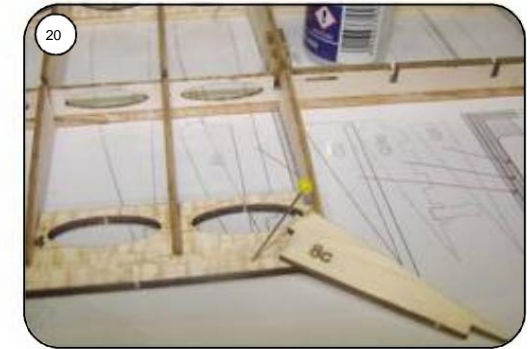
Tape the end strip F4 on the underside with adhesive tape (rib pockets).



Push in the end strip F4, secure it with pins and glue it to the ribs



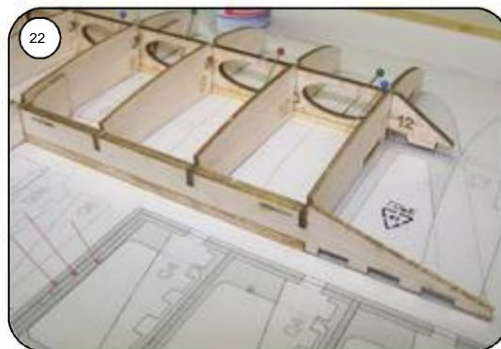
Insert rib 1 (note angle for V-shape) and glue



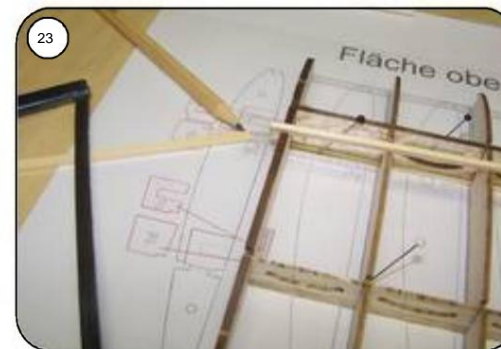
Fit reinforcing rib 8c.



Glue in reinforcement rib 8c.

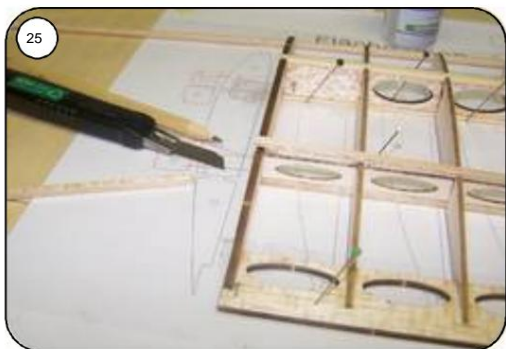


Glue in ribs 9 to 11.

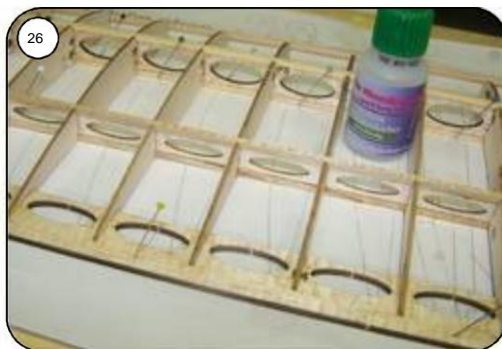


Cut the upper pine spar strap to lengths of 4 x 2 mm and stick it on with thick superglue.





Cut the auxiliary spar balsa to 3 x 3 mm and glue it to the rear comb spar.



Cut the beech nose strip to around 4 mm and glue it in place.



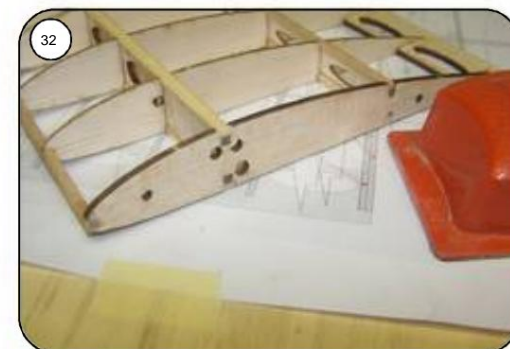
Remove the surface from the building board and remove the tape strips.



Coat rib 12 with white glue and push it onto the end of the surface, secure it additionally with a second.



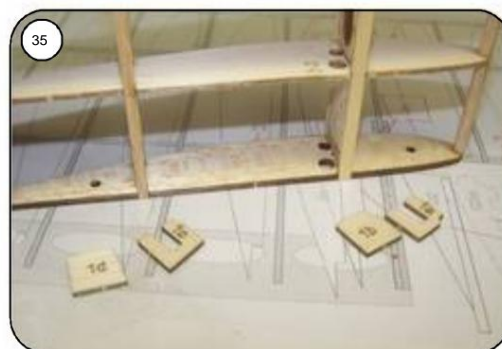
Insert edge sheet F5 and glue in with second.



Sand off any excess strips on rib 1.



Sand the end strip at the end edge according to plan. Double-glued crepe strips glued to the ends of the ribs prevent them from being accidentally sanded.

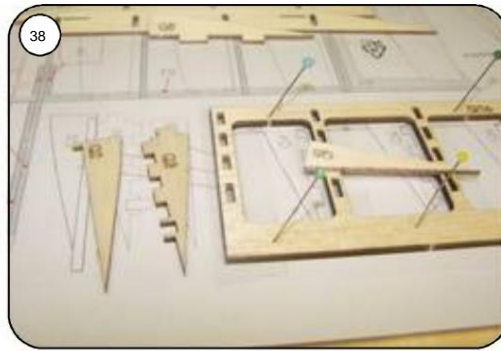


Glue pockets for the tensioning eyes 1a to 1d onto the inside of rib 1 according to the plan.

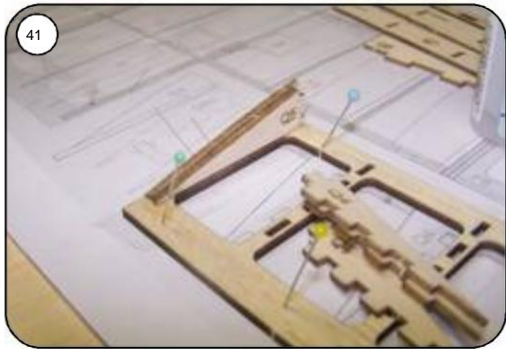
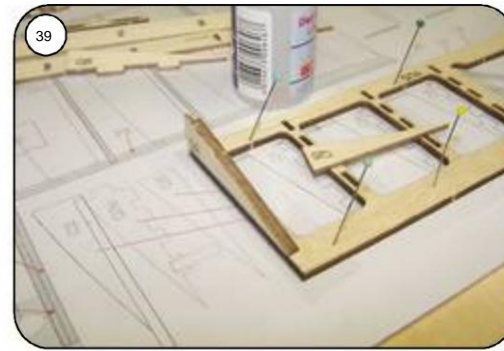




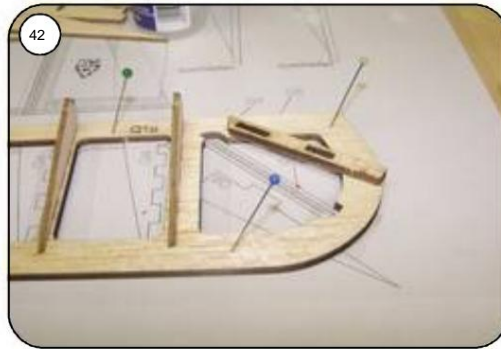
Cover the slots on the underside of the aileron base Q1o with adhesive tape.



Glue rib sections Q2, Q3 and Q5 flush with one another into the aileron base Q1 using superglue.



Glue in rib sections Q4.



Fit the diagonal bar Q1a into the pocket of Q1 and glue it in place with superglue.



Push the doubling of the hinge strip Q7 onto the rib pins and glue it together. Glue in rib Q6.



Attach hinge strip Q8 and glue it in place with superglue.



Sand the end strip according to the plan as for the wing.



Sand the hinge edge for the desired hinge design, see plan for cuts.



Adjust the ailerons to the wing and sand both cleanly.

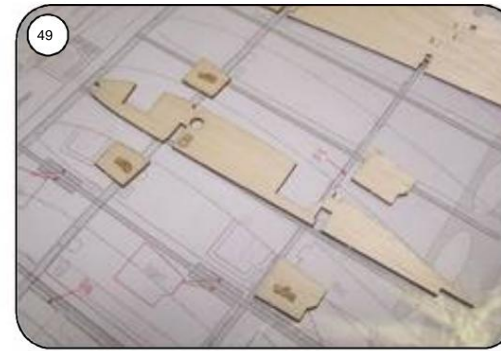
**Note on the structure of the lower wing halves:**

The structure of the upper and lower wings only differ in some components. In terms of structure logic, both are identical, that is, it can be an upper and on the plan of the right or left half a lower half of the area will be built.

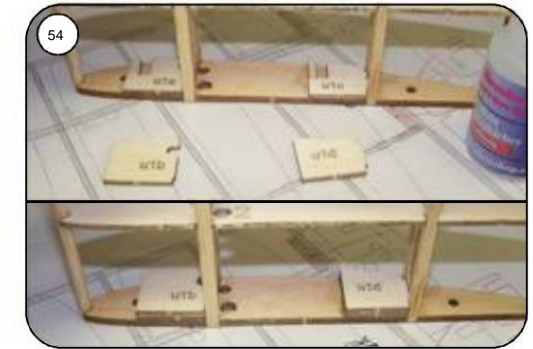
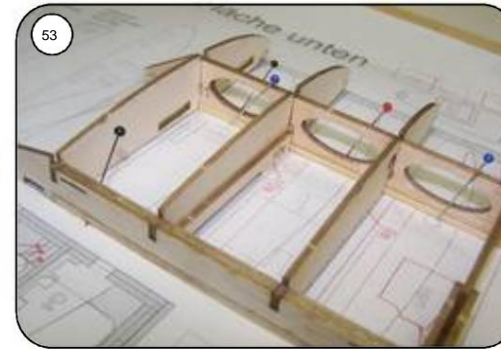
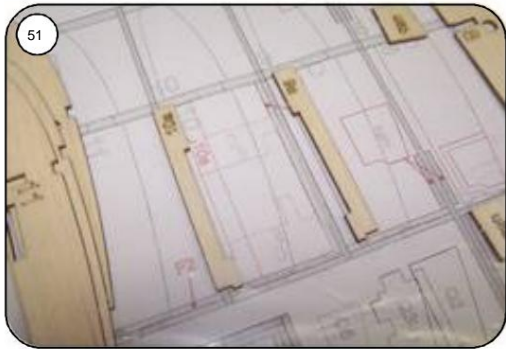
The changes in the components only affect the rib 8 cover plates u8a and u8b, as well as parts u1a to u1c.

In addition, there are constraints 9a and 10a on the lower wing to install the servo mount.

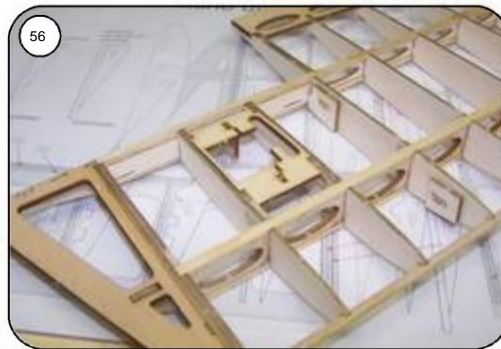
The following photos therefore only show the different components the structure of the lower wing.



Glue covers u8a and u8b onto rib 8 on both sides.

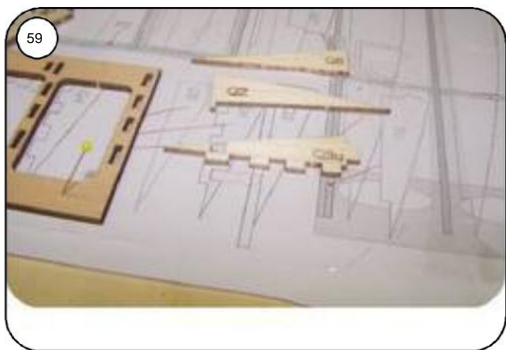


Glue the supports for the servo mount 9a and 10a onto the corresponding ribs 9 and 10 according to the plan, insert the ribs into the surface. Pockets for the tensioning eyes u1a to u1c. Glue u1d onto rib 1 according to plan.

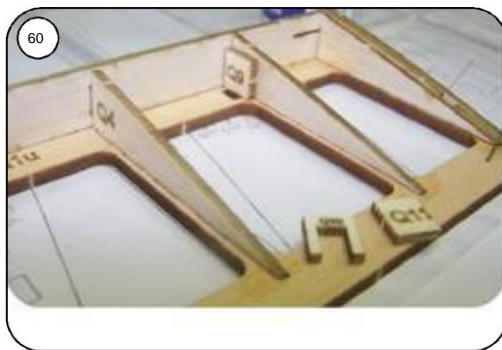


Release the parts for the servo mount from the laser board and glue the servo mount together and insert it into the surface as a test.

Put the bracing and struts into the appropriate pockets as a test. Insert, adjust if necessary. Final assembly only takes place after the covering.



The parts are on the lower wing  
Q1u and Q3u opposite the upper one  
Pass the filter.



In addition, the pocket for the rudder horn is made from parts Q9, Q10 and Q11  
glued in.



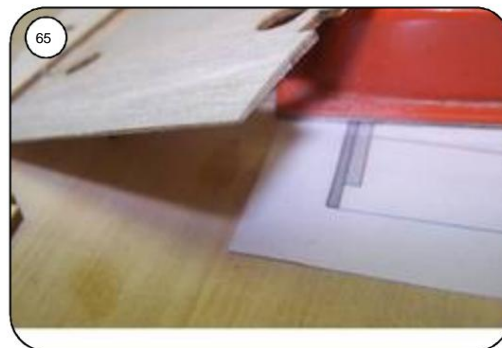
Connecting pins for the coupling rods  
the upper and lower ailerons  
use on a trial basis.



Components for the lower surface centerpiece  
select according to construction plan.



Paneling parts Mu1 and Mu2 on the  
Glue the later visible side together with  
adhesive tape and glue from the opposite side.



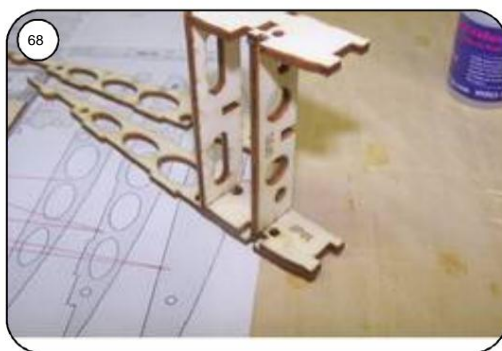
Grind the end edge of Mu2 diagonally -  
adhesive surface.



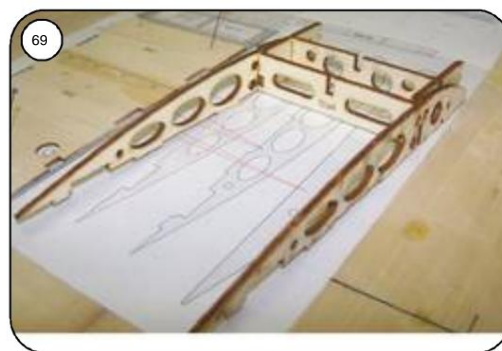
Connecting bridge Mu4 in rib Mu3  
paste in.



Insert the bridge Mu5 and half rib Mu6  
and glue.



Glue half-rib Mu6 and rib Mu3 on the opposite side and at right angles  
align.



Lower planking Mu1 / Mu2 on the  
Pin on the blueprint.





Assembly Mu3 - Mu6 (rib frame) together with the screw support Mu7  
Glue onto the paneling Mu1 / Mu2.



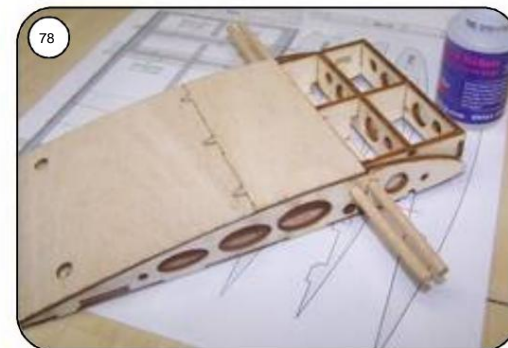
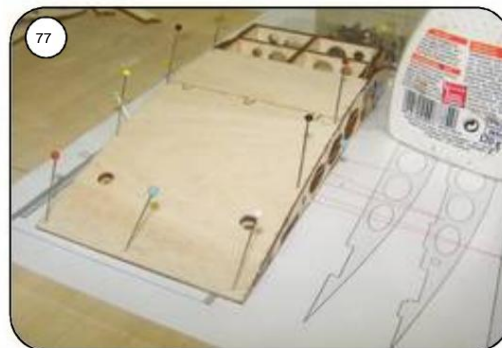
Glue in the front bar Mu8.



Glue planking Mu12 and Mu13.



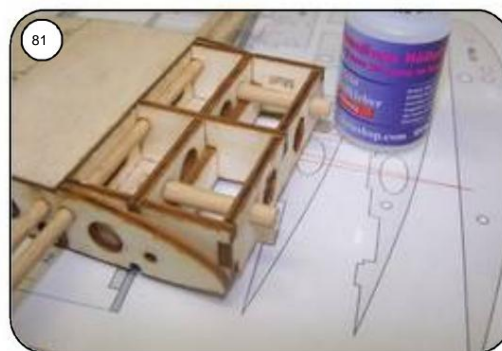
Sand the end edge of Mu13 diagonally (adhesive edge), glue the planking onto the rib framework with white glue and use needles to back up.



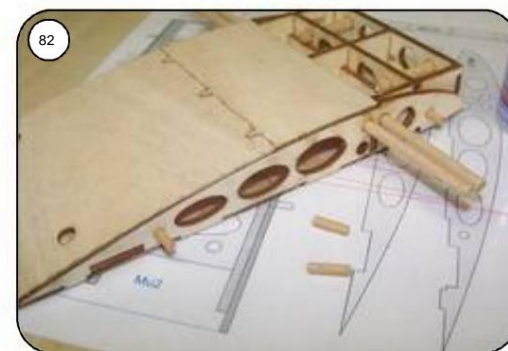
Beech round rods 4x170 mm (plug-in)  
Glue into the middle piece.



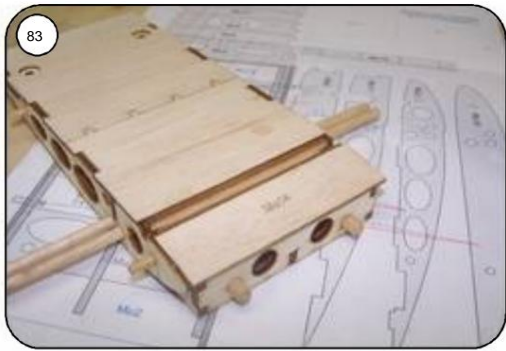
Glue in reinforcement bars Mu9 and Mu10 from the underside (undercarriage pocket).



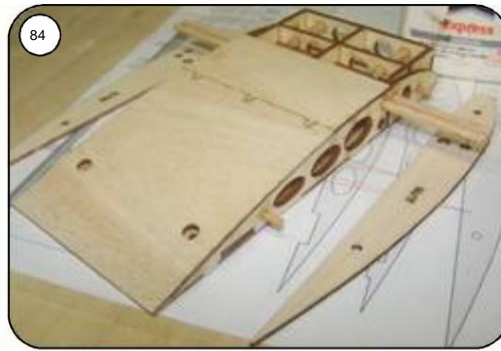
Beech end Äbel 4x35 mm (plug-in) in  
Glue in Mu5 and Mu8.



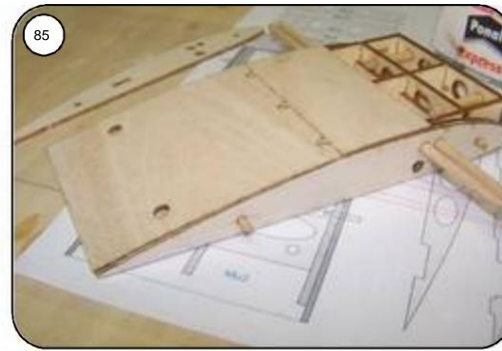
Beech end Äbel 3x15 mm front and back  
Glue into Mu3.



Adjust the lower paneling at the front Mu14 and stick it on.



Glue the cover ribs Mu15 to the center piece on both sides using white glue.



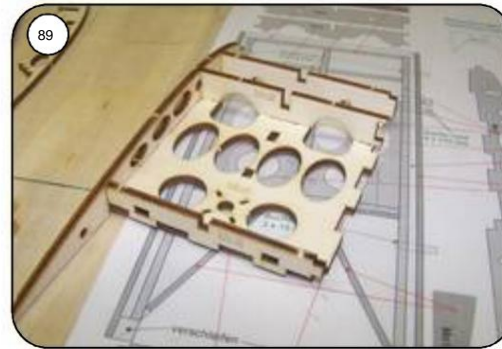
Entire middle section carefully slur.



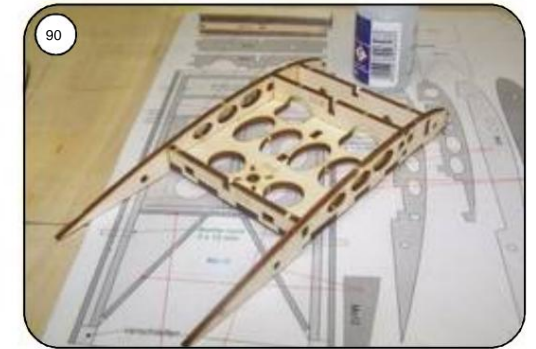
Components for the upper surface centerpiece from the laser boards and pre-sort.



Webs Mo2, Mo3 and Mo5 in rib Mo1  
Glue in at right angles.



Insert the middle base Mo6, push on the counter rib Mo1 and glue everything together carefully.  
Make sure the connections are neat.



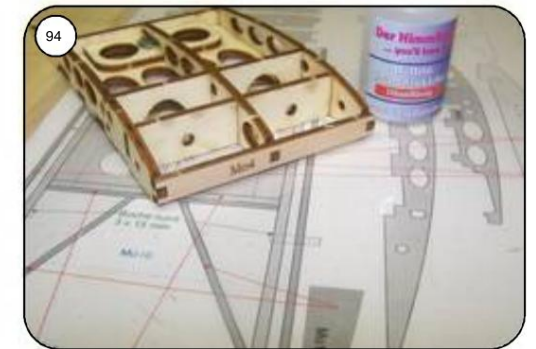
Insert the doubling Mo7 and glue it with superglue.



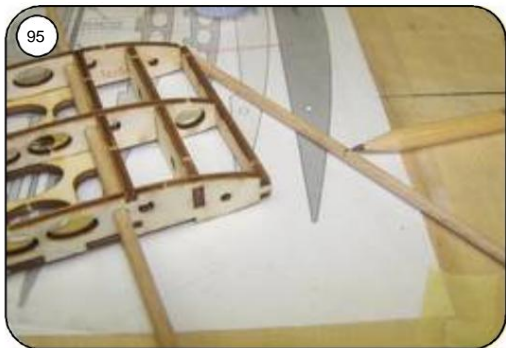
M4 impact nut with corresponding screw  
pull in and secure with superglue.



Glue in the middle rib Mo8.



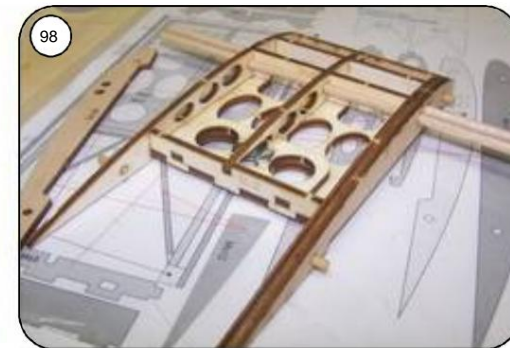
Attach the auxiliary nose strip Mo4 and  
paste in.



Cut round beech rods 4 x 170 mm and glue them into the middle of the middle piece.



Cut the beech end cable to 3 x 15 mm and insert it  
Glue in the ribs Mo1.



Spacer ribs Mo9 on both sides of the ribs  
Glue Mo1 on.



Glue the lower nose paneling Mo15 onto the rear edge flush with Mo3.



Glue the bottom end paneling made of Mo10 and Mo11 together into the middle section  
insert and glue.



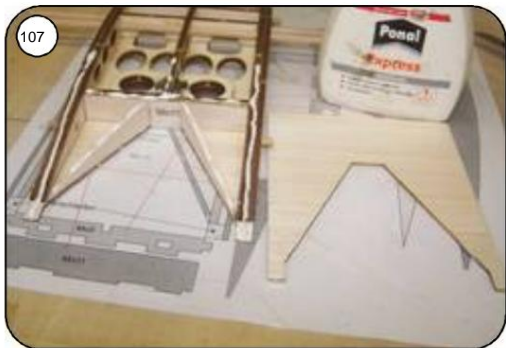
Ends of planking Mo10 light  
Sand diagonally (adhesive surface).



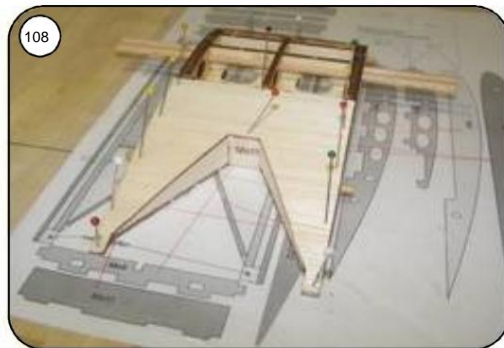
Fit half ribs Mo12 and glue them to Mo10 and Mo11 accordingly.  
Remove the rear bridge from Mo10.



Upper planking Mo13 at the ends  
sand slightly at an angle (adhesive surface).



107  
Glue the upper paneling Mo13 to the middle piece with white glue and up to Secure drying with needles.



108



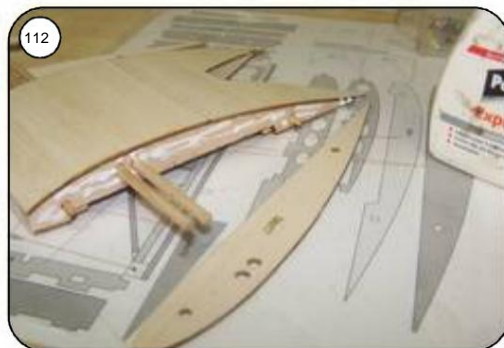
109  
Glue the upper paneling Mo14 to the middle piece with white glue and up to Secure drying with needles.



110



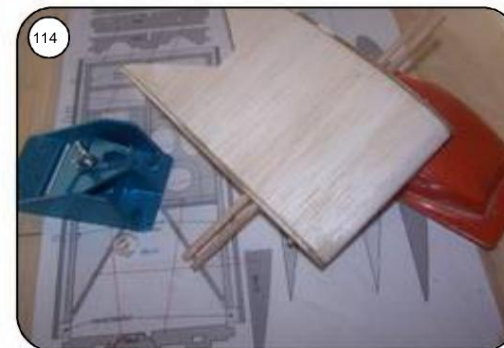
111  
BeplankungsOberstände all round slur.



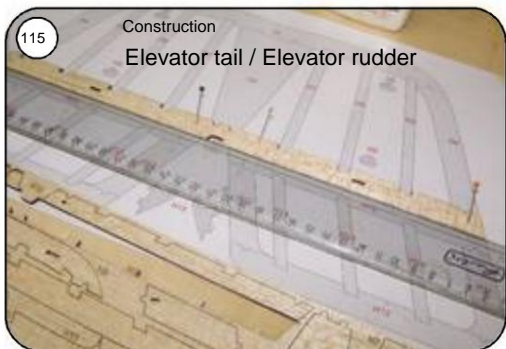
112  
Glue cover ribs Mo17 on both sides.



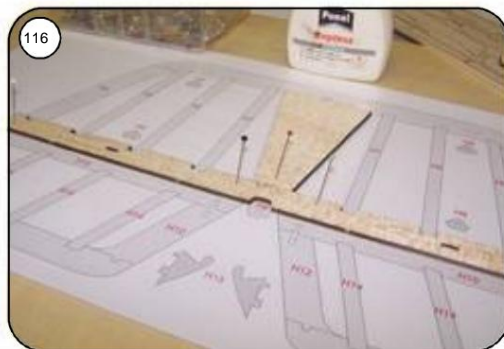
113  
Fit the nose strip Mo16 and glue it on. Sand the entire middle section cleanly.



114



115  
Construction Elevator tail / Elevator rudder  
End bar H1 on the construction plan and Additionally align with a ruler and fix with pins.



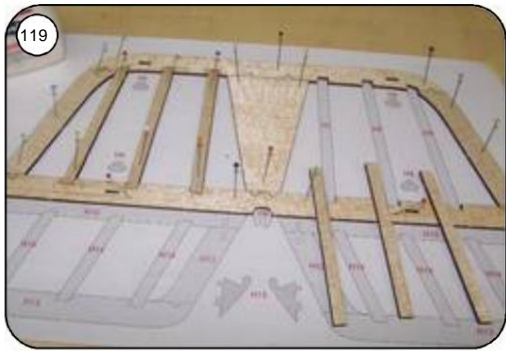
116  
Align the center piece H2 and the nose strip H3 according to the plan and glue them together with white glue.



117



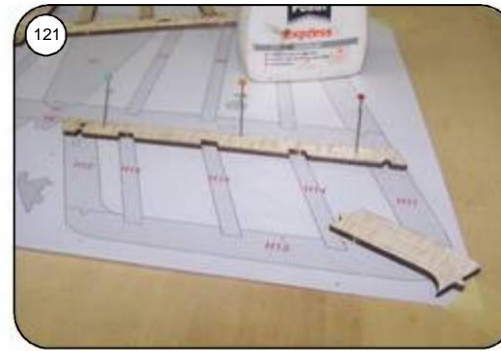
118  
Glue in edge sheets H4 on the right and left.



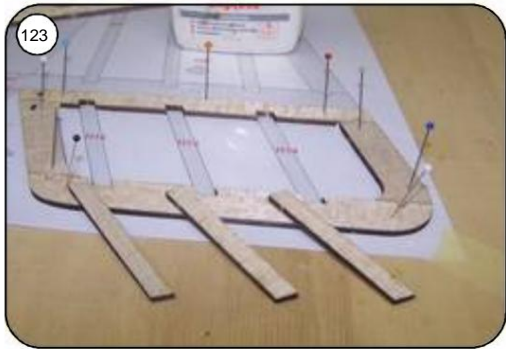
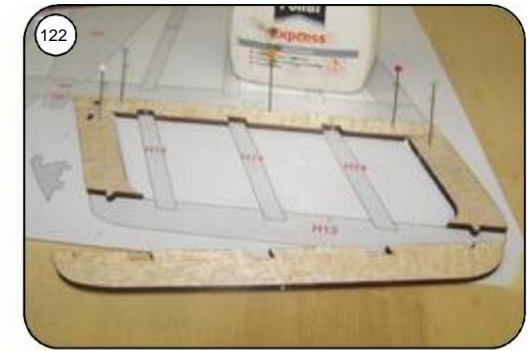
Glue in webs H5, H6 and H7.



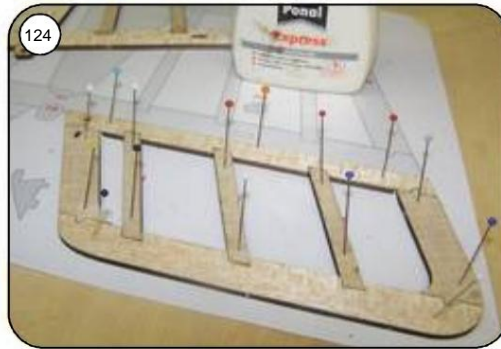
Glue on the hinge bearing pin H8.  
(Strut bearing H9 only after  
Glue in the covering)



Glue the elevator parts H10, H11, H12 and H13 together according to the construction plan and add them  
Fix the needles on the building board.



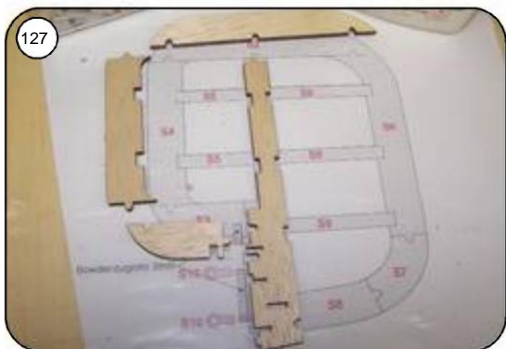
Fit and glue the bars H14 in place and secure with pins until they dry.



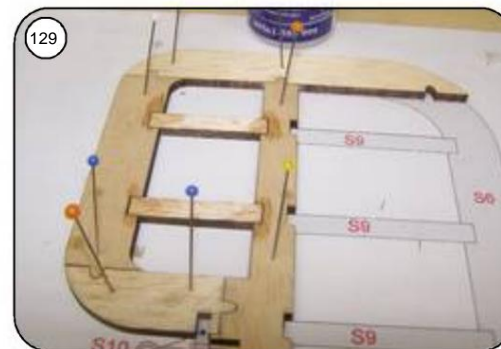
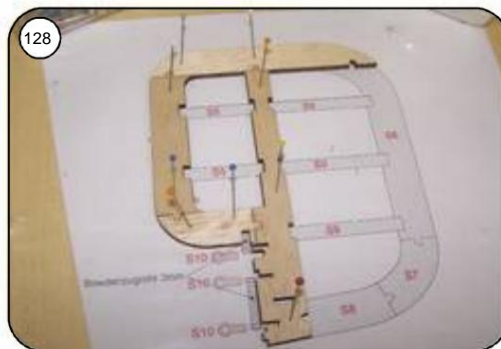
Build the opposite side in the same way.



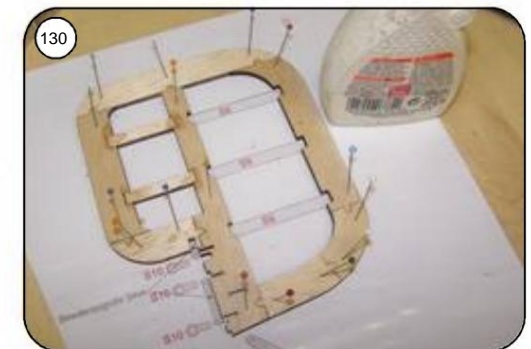
Hinge edge slanted towards the bottom  
Sand and round outer edges.



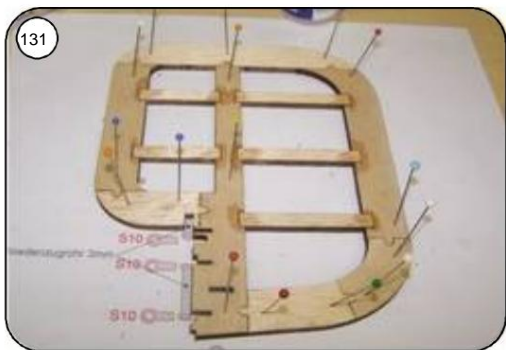
Align and glue rudder parts S1, S2, S3 and S4 according to the construction plan.



Glue in the bars S5.



Align parts S6, S7 and S8 and  
stick on.



Glue in the bars S9.



Cut the 3mm Bowden cable tube for the SR hinge according to the construction plan.

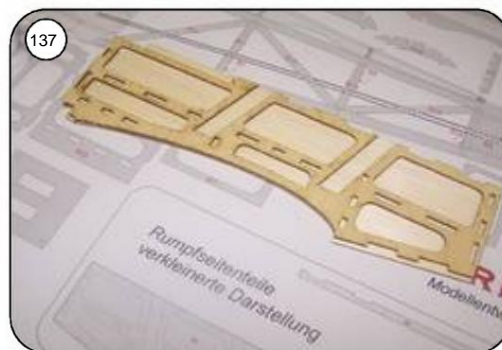
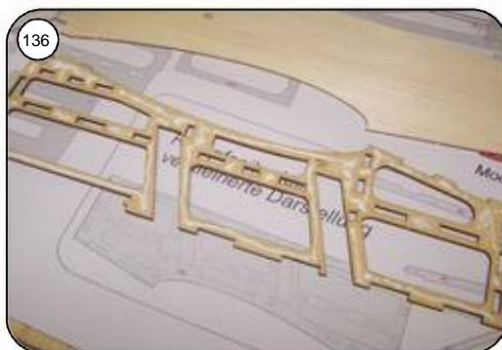


Upper hinge bearing (tube + S10)  
Glue into the rudder.



Lower hinge bearing (tube +  
Glue 2x S10) into the rudder.  
(Ruderhorn S11 after the Stretched)

135  
Next construction phase  
Hull/canopy



Glue the fuselage inner wall reinforcement R2 onto the fuselage side panel R1 in line with the contour, only including the larger adhesive areas  
Apply white glue, do not allow any glue to penetrate into the pockets in R2. Use weights until dry  
prove.



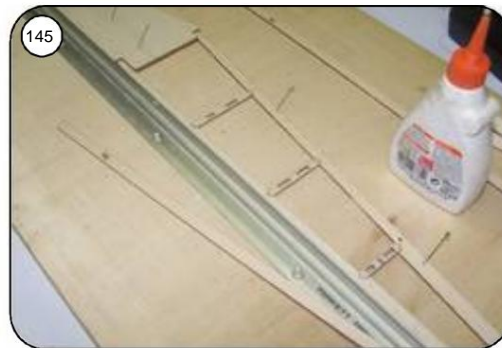
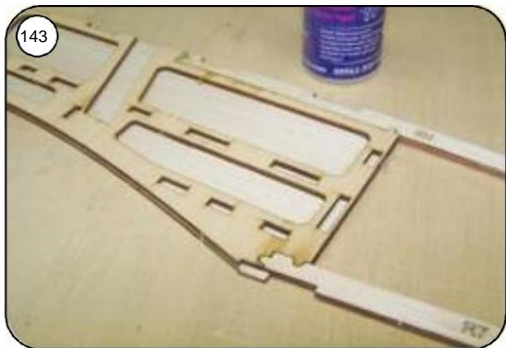
Glue from the inside with thin superglue  
(under the plywood  
let it creep in).



Staple the inner straps for the rear fuselage R6 and R7 together at the end of the fuselage with adhesive tape  
and glue it with superglue.

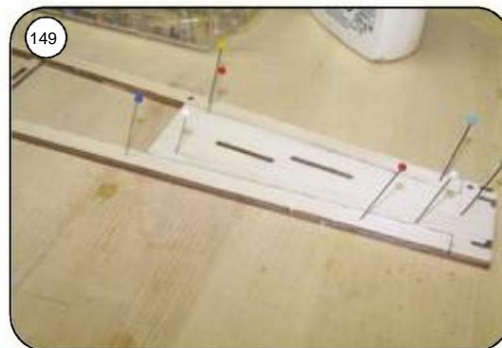
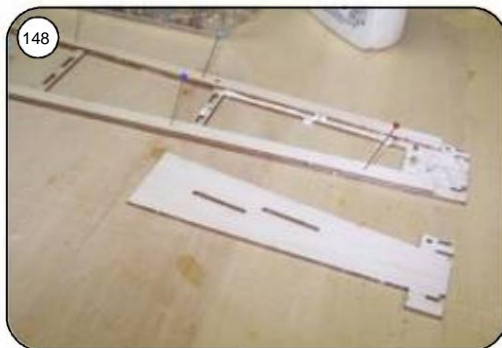


Align and glue R6 and R7 to the pins  
of R2.



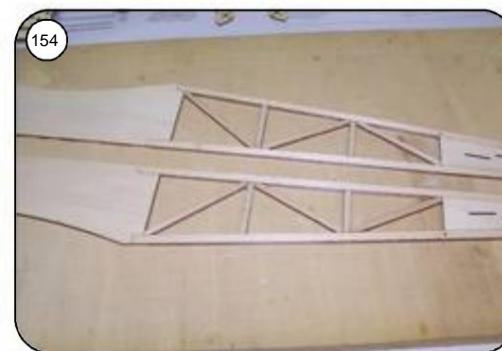
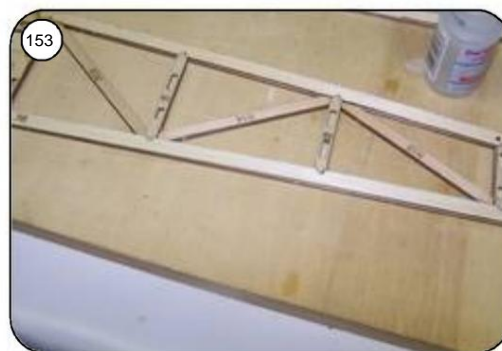
After drying, turn the assembly over and place it on the building board with the inside flat place on it and glue in the bars R8, R9 and R10.

Align the prepared assembly using a ruler on the upper edge of the fuselage and secure it to the building board with pins. Outer belt for the rear fuselage R3 on the Align the upper edge of the fuselage and glue it on.



Glue the inner fuselage strap R4 and the fuselage end R5 on and secure them to the building board with pins until they dry

Glue in outer webs R11 and R12.



The finished glued fuselage side parts Allow to dry thoroughly to avoid delays to avoid.

Insert the diagonal webs R13, R14 and R15 from the inside of the fuselage and press them flush with the outside of the fuselage, Glue in place with thin superglue.



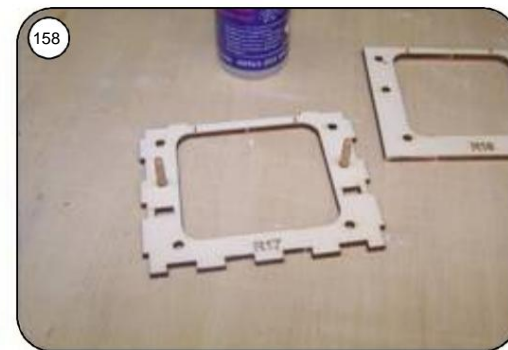
155



156



157



158

Prepare the components for the fuselage structure by gluing the auxiliary frame R19a to the frame R19 using 3 mm beech dowels and pressing them together.

Beech end Åbel approx. 20mm long in frame R17 paste in.



159



160



161



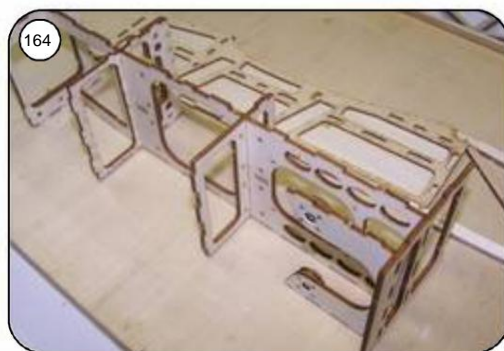
162

Glue frame R16 to R17 and press.

Place the M4 drive-in nuts together with the R 24a doubling rings on the frame R24 and press them together with a suitable threaded screw and glue with thin superglue.



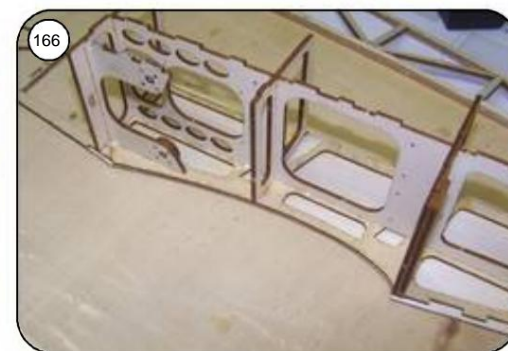
163



164



165

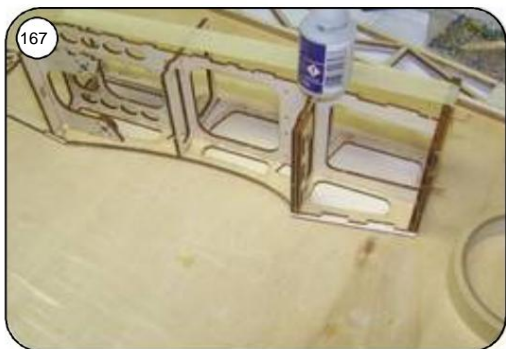


166

Assemble the frame frame from parts R16/17, R18, R19/19a and R20 to R24 and align at right angles to each other, if necessary attach with a little superglue.

Fill the pockets in R2 with a little white glue and insert the frame frame, if necessary, adjust beforehand without glue.





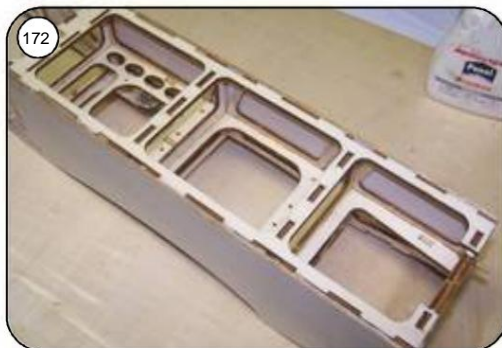
Clamp the open side of the frame together with a strip of tape and stick it with superglue at all the joints. Until it dries thoroughly assign weights.



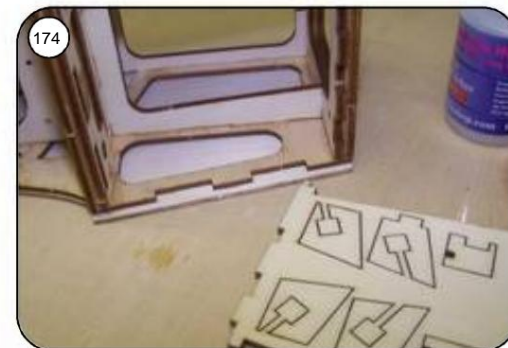
Opposite fuselage side part at the gluing points to the frame frame with glue Coat it and insert the frame frame, put weights on it again.



Glue the upper fuselage cover with white glue and secure it with superglue if necessary.



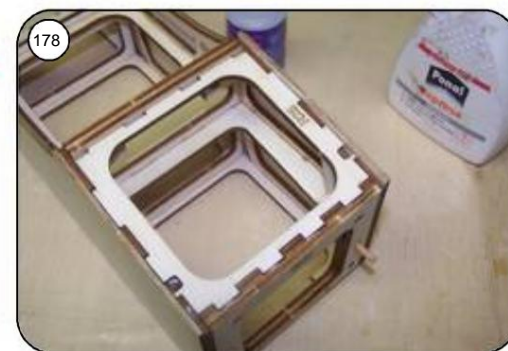
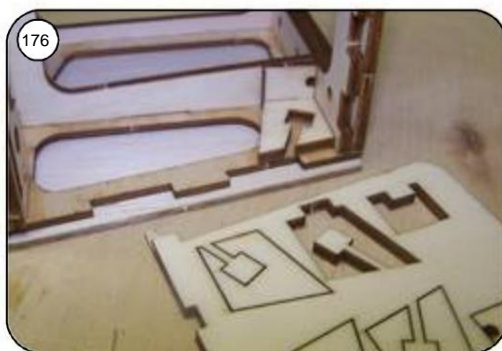
Use weights until dry prove.



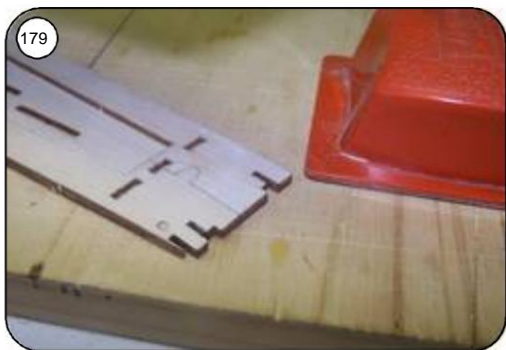
Parts for the front landing gear mount select.



Glue the parts into the side walls on the right and left using thin superglue in the order shown in the photos.



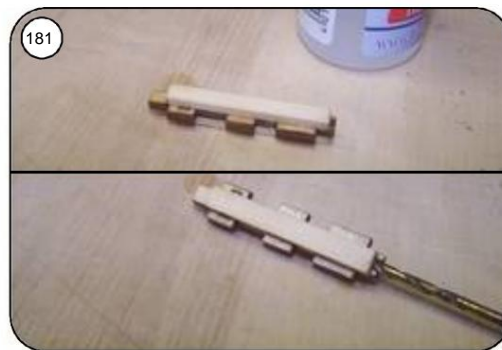
Lower support for the battery cover R25 fit and glue in.



179 Fuselage side panels at the inside of the fuselage end Sand diagonally, only the inner layer.



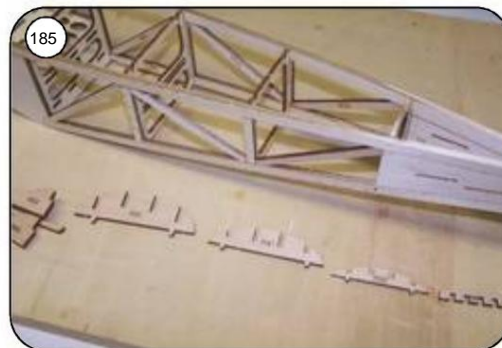
180 Double the frame R30 on both sides with remaining pieces of 4x2mm pine and then Drill out the bridge at the bottom end with 2mm (spur insertion)



182 Insert frames R27 to R30 into the fuselage side part and use a dropper Attach superglue.



183 Put weight on the front area of the fuselage (flat on the building board) then the Assemble supports St1 to St4 in the rear area according to the plan and the rear of the fuselage pull together, weight on top. Bonding with thin superglue.



185 Align half frames R31, R31a and R32 on the corresponding frames and glue them on



187 Carefully insert fuselage skirt strips R34 and R35 into the half frames and with these glue. Push in the end R33 and align it centrally on the fuselage. With Glue superglue.



189 Glue half frames R36 and R37 together with the spacer R38, Planking support for the rear cockpit area.

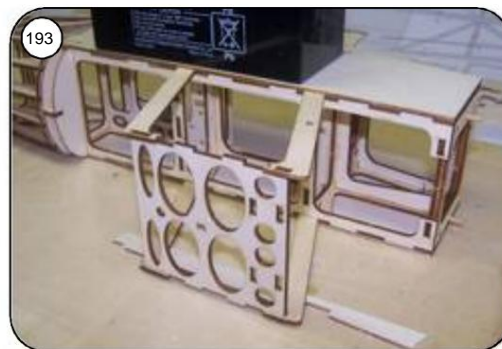




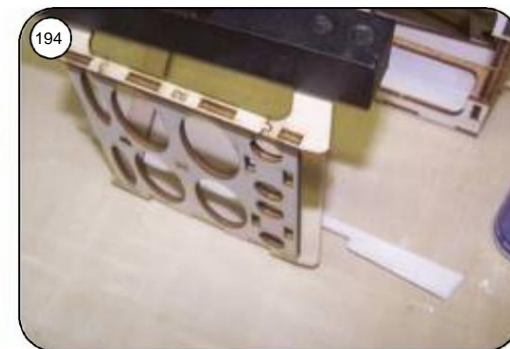
191



192



193



194

As an intermediate step, the canopy for the upper wing is now built, in this one  
The construction stage of the hull is the easiest. The struts B1 and B2 in the  
Insert the pockets of the fuselage side panels and staple B4 between them.

Place the fuselage with the side part on the building board (put weight on it). The struts  
in the upper area with balsa residue strips 2mm underneath and the intermediate pieces B3  
paste in. Carefully re-glue all glued areas.



195



196



197



198

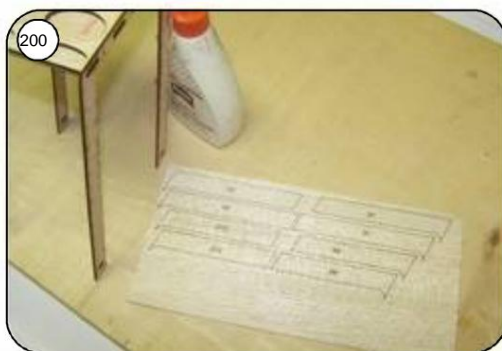
Glue in the lower canopy paneling B6 and use weights until it dries  
prove.

Hold eyelets B5 for the plug-in pegs  
Glue to the top of B4.

Cut 4mm beech end cables according to plan  
and glue it into the holding eyelets B5 with  
superglue.



199



200



201



202

All glued areas with plenty of white glue  
re-glue.

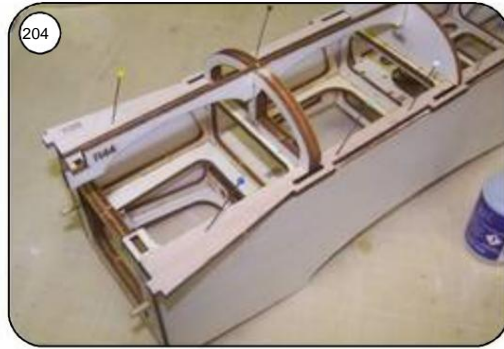
The strut covers B7 to B10  
will only be made after the final  
Adaptation glued to the hull.

Place the finished canopy in the top  
Fit the surface centerpiece.

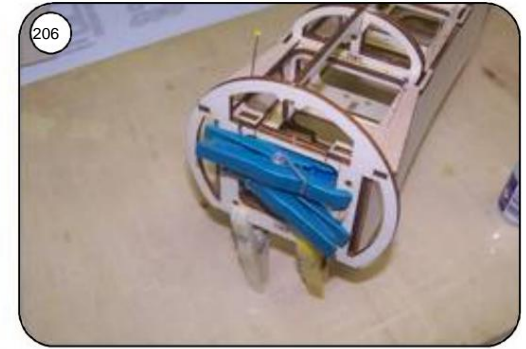
Parts for the hull back paneling  
Select R39 to R43.



Glue in half frames R40, R41 and R42 together with the support strips R39, then stick on the bar R44.



Glue the front ring frame R43 to the fuselage head and secure it with clamps up to Ensure drying.



Hull back planking R45 on the Moisten the outside with water and carefully bend forward a little.



Place R45 on the fuselage side panel and with second from the inside Glue the frames together with white glue.



Bend the planking around the frames and along the upper middle bars Glue superglue. Apply opposite planking.



Planking support R39 slanted according to the curve of the ring frame grind.



Also moisten the front paneling R46 from the outside with water and pre-bend it. Put the planking on and glue it on the inside with superglue.



Apply opposite planking.



215 Place planking R47 (transition between fuselage and ring frame) and the end edge on the fuselage mark. Grind the end edge of the planking diagonally as a support on the hull.



217 Moisten the planking again with water and bend forward.



218 At the end edge with thick superglue, the rest from the inside Glue with thin superglue.



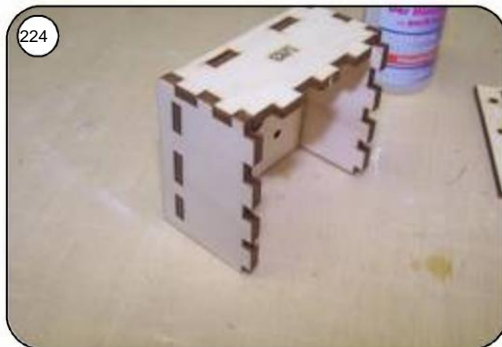
219 Excess planking on the hull head sand smoothly.



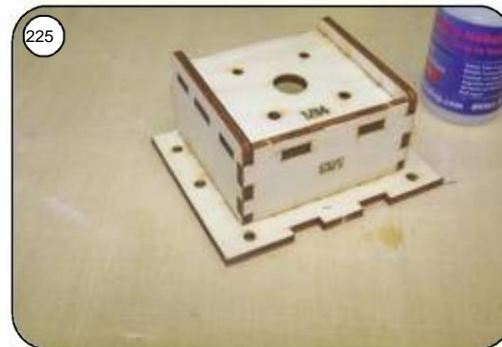
220 Fit the lower surface center piece into the fuselage, if necessary ream out the holes for the plug-in pegs a little. middle floor Insert and glue in the lower planking for the transition between the end strip and the fuselage.



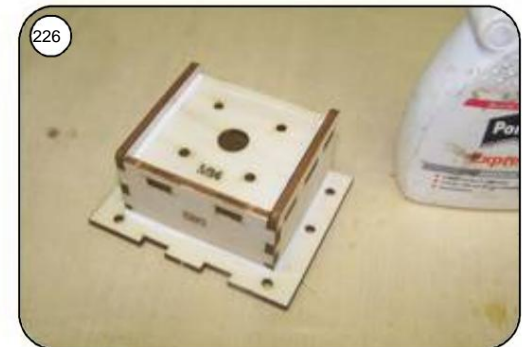
223 Parts for the engine mount Mt1 to Mt5 select.



224 Mt2, Mt3 and Mt4 into one box glue.

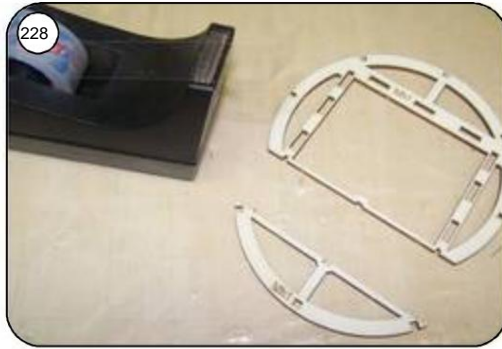


225 Glue the carrier box made of Mt2 to Mt4 into the base plate Mt1 with superglue. Additionally seal all glued areas with white glue.

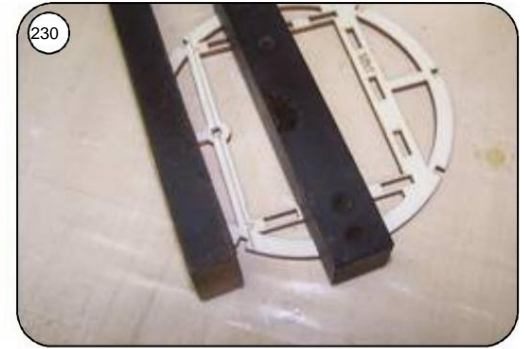




227  
Screw connection bar for the bonnet Mh5 into the corresponding recesses paste in.



228  
Glue the front ring frame for the bonnet Mh1 together with adhesive tape, fold it open and put white glue into the gap. Until Place weights to dry thoroughly.



231  
Glue in the planking layer Mh4.



232  
Glue the spacer frame made of Mh2 and Mh3 together into the front ring frame Mh1 Insert and glue with superglue.



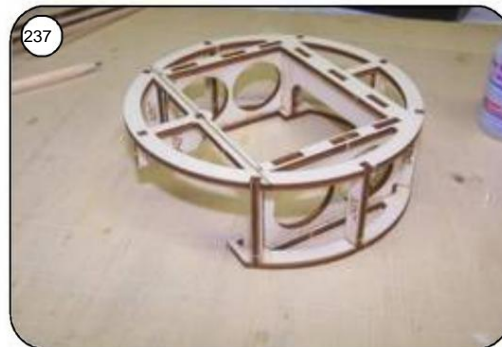
234  
Insert the finished assembly into the rear ring frame Mh5 and also Glue superglue.



235  
Connecting bridge Mh6 Get the ring bond Glue into the top of the hood frame. Double notch towards Mh5!!!



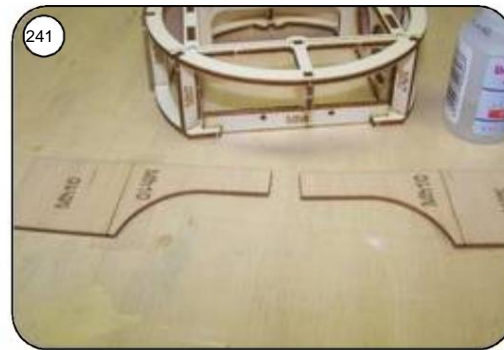
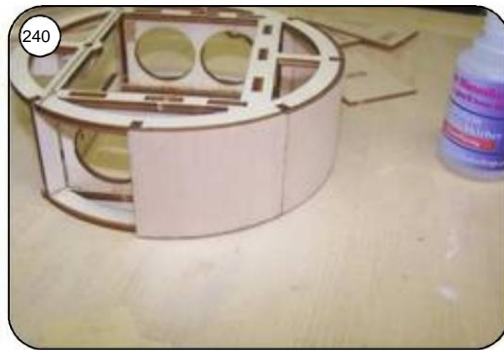
236  
Insert connecting bars Mh7 for the ring frames all around and glue them together.



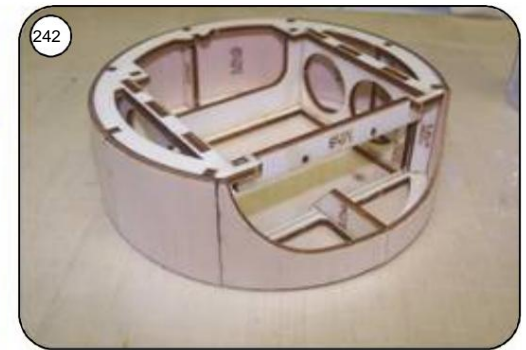
238  
Fastening web Mh8 into the ring frame Glue Mh5.



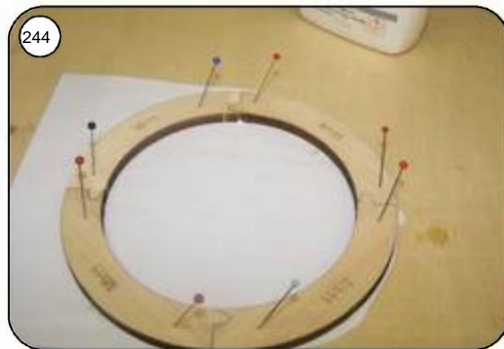
Paneling parts Mh9, starting from the top, 2 pieces each on the right and left. stick on. Bonding from the inside with thin superglue.



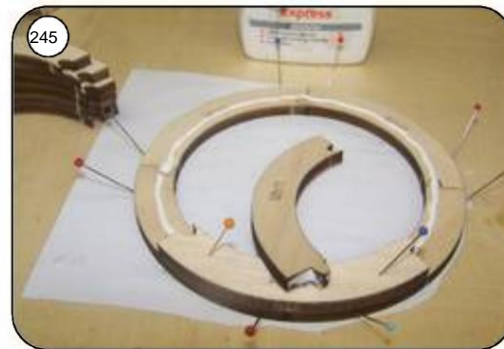
Glue the Mh10 paneling parts together and place them on the lower area of the hood stick on.



Parts for the front hood area  
Select Mh11, Mh12, Mh13 and Mh14.



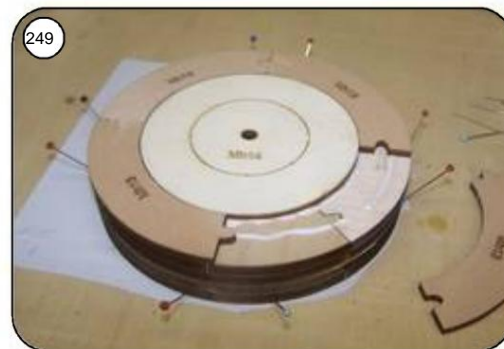
Glue 4 pieces of Mh11 onto a section of the building plan to form a ring. Double up 2 more layers of Mh11, always turning around  
Glue twisted approx. 45°.



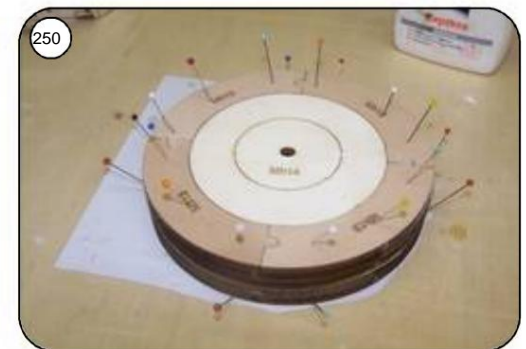
Fix with pins until dry.



Next, a ring made of 4 parts  
Stick on Mh12 (turn again approx. 45°).



4 pcs. Glue Mh13 and the plate Mh14 on and fix until dry.





M6 threaded screw with suitable washers into the front panel Mh14 screw it in and clamp it in a drill.



Nose block *carefully* at low speed \_\_\_\_\_ Grind/turn into shape, using the Do not sand the rear ring as this will later be attached to the rear part of the hood adjusted. Remove threaded screw and center piece from Mh14.



Glue the finished nose block to the rear part of the hood with white glue.



Temporarily attach the finished motor mount to the fuselage head with 2 screws Put on the engine hood and screw it to the engine support from the underside.



The shape of the hood can now be sanded to match the fuselage head become.

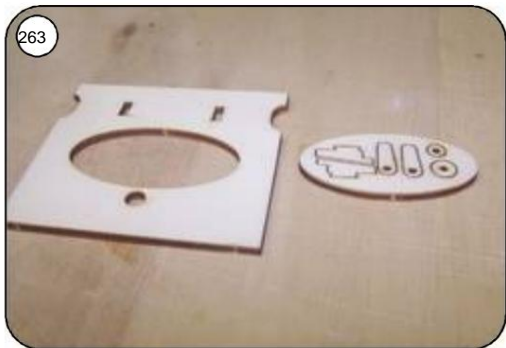


File pockets for the canopy struts with a flat key file and the Insert the canopy easily.



Sand the entire hull cleanly.





Select parts for the battery cover.



Retaining hooks in the corresponding ones  
Glue bags into the lid.



The smaller ring with a quarter turn  
screw and glue.



The larger ring and the inside sash  
just screw it together, only after it has been done  
Finally glue the covering together.



Fit the lid into the bottom of the fuselage and  
the planking strip R49 on the  
Glue on frames.



Produce wires for the chassis according to  
the bending instructions.



Front landing gear wires into the mounts  
Insert into the fuselage and with a 2mm adjusting ring  
to back up.



Suspension backdrops with superglue  
stick together.



Suspension settings thoroughly all around  
soak/harden in thin superglue.



Blehschrauben ( Halter for Gummifeder )  
screw into the suspension links.



Sand the rear landing gear wire on all adhesive  
surfaces with sandpaper.



Suspension links with 3 mm adjusting rings  
Align and fix on the main axis  
Glue in the chassis wire with 2K adhesive.



275 Mount the landing gear on the fuselage, front Chassis wires with 2K glue into the Glue in the suspension backdrops.



276 Sew the undercarriage panels to the undercarriage wires using household twine Glue with thin superglue. Chassis fairings to the suspension backdrops Glue with 2K glue.



278 Dismantle the finished chassis again.



279 Front and rear connecting tubes (Bowden cable 2mm) for the tail unit strut into the corresponding holes in the Glue the fuselage in place and cut it off flush with the outside of the fuselage.



282 Select hinge bearing R48 and Bowden cable tube 3mm to approximately 8 mm LÇnge ablÇngen.



283 Glue the Bowden cable section into bearing R48, the distance is determined by the recesses on the underside of the fuselage, components in Glue the recesses on the underside of the fuselage, with the Bowden cable section protruding downwards.



286 Upper bearing R48 in the fuselage cutout align and glue.



Glue the extensions for the canopy struts B7 to B10 to the inside and outside of the struts. Fill the transition between doubling and planking.



Round out and clean the doubling and struts in the area that will be visible later slur. Fit the canopy again into the middle of the area, making sure it moves easily. Cut the M4 plastic screw to length.

Fit the canopy into the fuselage again and the locking bridges in the fuselage. Fit in, pay attention to ease of movement here too.



Halves of the area with the respective middle piece on the connecting ribs are coated with white glue. Glue together and clamp together with tape strips.

Put weight on the center of the surface and place supports on the right and left of rib 8 and put weight on the outer wing. Plug-in dowel (beech) with thin glue superglue to the comb spar and the ribs.



Glue the doublers for the surface struts on the right and left onto the plywood struts according to the marking; the holes should be absolutely congruent. The The respective designation for the front and rear struts is always attached towards the upper wing.



Add weight until dry prove.



Plug-in pin with the respective one  
Marking provided for later  
To avoid confusion.



Surface struts on the front and rear edges  
grind round.



Select components for the wheels.



Remove parts from the laser boards.



Some spokes (not all) on one  
Glue the side into the inner wheel ring.



Double rings for the axle  
Glue in (2 pieces per side)



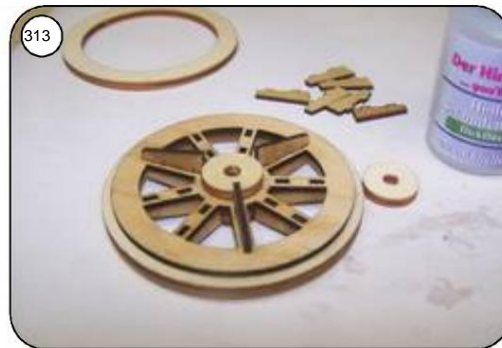
Glue in the remaining spokes.



Glue on the outer rim ring.



Only on the other side at first glue in some spokes.



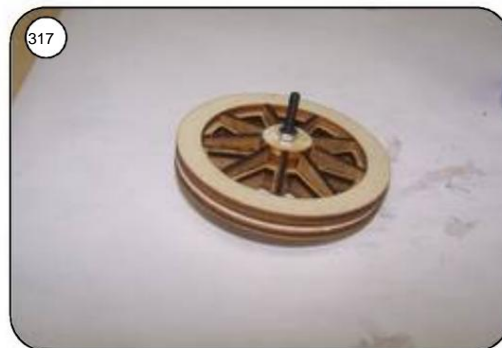
Glue in the doubling rings for the axle and reinsert the remaining spokes.



Glue on the second outer rim ring.



Wheel axle (MS tube 4/3 x 14 mm) paste in.



Screw a longer M4 threaded screw into the wheel axle. The bike with the Clamp the screw in a drill and at low speed with a Rub/turn the rim base with a round file.



Remove the screw again.



Foam rubber cord on 210 mm with a Cut the cutter knife and moisten it Cutter blade makes cutting easier.



Foam rubber on StoÉ with superglue Glue neatly into a ring.



Put it on the rim as a test, final bonding only after Stretched der Felge.

The shell of the model is now completed, what follows: the covering, the RC installation, drive installation and finishing and adjustment work. We recommend fabric foil for the covering, this fits the model best and brings great advantages in terms of aerodynamics. Coloring can easily be realized according to your own ideas.

The components required for RC and drive installation can be found in the accessories recommendation on the front page of this Construction instructions, other components can of course also be installed at your own discretion.

The finishing work naturally includes the installation of the surfaces and tail unit struts as well as the bracing.

**Mandatory** for stability reasons The tail unit struts are required; the wing struts have an impact on the flight behavior little influence, flight tests without these went smoothly.

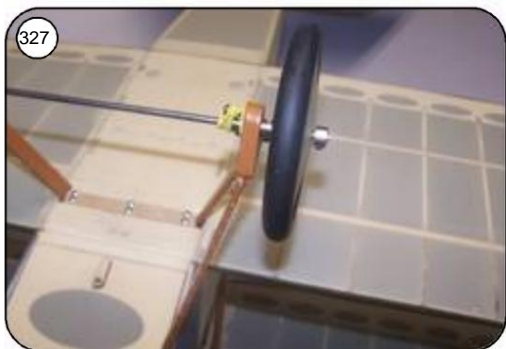
But because an old biplane with struts and bracing is more authentic, we also intended the model for this.

This is documented below with some photos and tips.



To make the rudder rods, bend a piece of steel wire at one end to a length of 2 mm at 90°, the small, Attach an oval wooden segment and secure it with a little superglue if necessary. Shorten the rods to the appropriate length on the other. Bend the end of a Z-rod and hook it into the servo lever, push on the shrink tube and shrink it in with the control horn.

Finally mount the chassis and Fit battery cover.

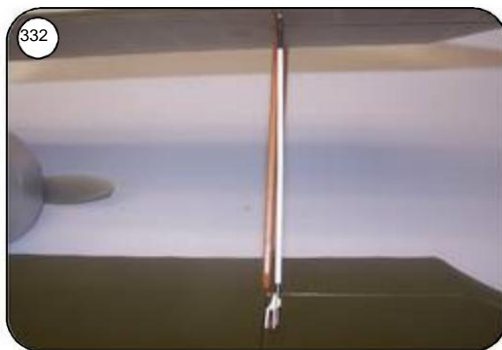


Mount the wheel axle with the adjusting rings as shown in the photo, attach the wheels and also secure with adjusting rings. Clamp the suspension rubbers (included O-rings).

Cut the tail unit struts (1mm steel wire), push on the Bowden cable tubes, Angle it at 90° at one end, hang it in the fuselage and on the tailplane and with it Glue in epoxy. Linkage of the rudder with cable (twine), elevator rudder with double-guided Bowden cable.



Cut the coupling rods for the ailerons to the appropriate length. Connection to the control horn with shrink tubing. Alternatively, a safety clip can be used on one side of the pole for easier disassembly.



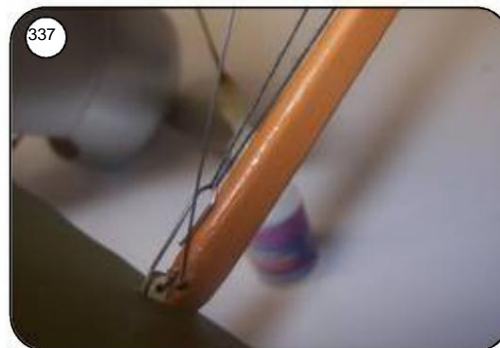
Install the struts and brace them against each other with appropriately long 0.8 mm steel wires and glue them together with epoxy.



Small hooks made from paper clips make it possible to dismantle the tension if necessary.



Adjust the hook to the size of the lashings, tie the twine on and secure with superglue. Hang at the top and bottom and knot to the appropriate length. Bracing the upper and lower wings is necessary if you want to fly with installed struts. This prevents the wing struts from accidentally popping out. Additional (diagonal bracing) can also be installed at your own discretion.



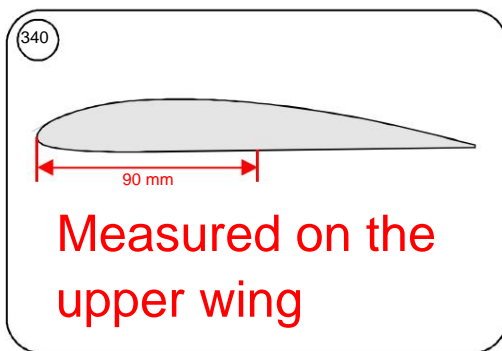
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**Aileron: up 30 mm, down 20 mm**

**Elevator: up 30 mm down 25 mm**

**Rudder: to the right and left 35 mm each**

Setting values for elevator, rudder and aileron.



Location of the center of gravity (CG).

**Important !** The construction instructions and construction plans are an essential part of the model and should definitely be handed over when passing the model on to third parties.

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**!**

For consequential damage caused by and with the operation No liability can be accepted for products from our delivery program as they are in proper operation cannot be monitored by us. Observe all safety instructions and instructions for intended use.

## Stückliste Tragflächen

4 Stck.	F 1	Kammholm hinten	Laserteil Balsa 2 mm
4 Stck.	F 2	Scharnierverstärkung	Laserteil Balsa 2 mm
4 Stck.	F 3	Hauptkammholm	Laserteil Balsa 3 mm
4 Stck.	F 4	Endleiste	Laserteil Balsa 3 mm
4 Stck.	F 5	Randbogen	Laserteil Balsa 3 mm
4 Stck.		Rippe 1 ( Ober- und Unterflügel )	Laserteil Balsa 3 mm
4 Stck.		Rippe 2 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 3 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 4 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 5 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 6 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 7 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
2 Stck.		Rippe 8 oben	Laserteil Balsa 2 mm
2 Stck.		Rippe 8 unten	Laserteil Balsa 2 mm
4 Stck.		Aufdoppelung 8c ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 9 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 10 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 11 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		Rippe 12 ( Ober- und Unterflügel )	Laserteil Balsa 2 mm
4 Stck.		8a Abdeckung obere Strebensteckung h.	Laserteil Balsa 2 mm
4 Stck.		8b Abdeckung obere Strebensteckung v.	Laserteil Balsa 2 mm
4 Stck.		1a Tasche f. obere Verspannungsöse v.	Laserteil Balsa 2 mm
4 Stck.		1b Tasche f. obere Verspannungsöse v.	Laserteil Balsa 2 mm
4 Stck.		1c Tasche f. obere Verspannungsöse h.	Laserteil Balsa 2 mm
4 Stck.		1d Tasche f. obere Verspannungsöse h.	Laserteil Balsa 2 mm
4 Stck.		u8a Abdeckung untere Strebensteckung h.	Laserteil Balsa 2 mm
4 Stck.		u8b Abdeckung untere Strebensteckung v.	Laserteil Balsa 2 mm
4 Stck.		u1a Tasche f. untere Verspannungsöse v.	Laserteil Balsa 2 mm
4 Stck.		u1b Tasche f. untere Verspannungsöse v.	Laserteil Balsa 2 mm
4 Stck.		u1c Tasche f. untere Verspannungsöse h.	Laserteil Balsa 2 mm
4 Stck.		u1d Tasche f. untere Verspannungsöse h.	Laserteil Balsa 2 mm
2 Stck.		9a Auflageleiste f. Servorahmen	Laserteil Balsa 2 mm
2 Stck.		10a Auflageleiste f. Servorahmen	Laserteil Balsa 2 mm
2 Stck.		oberes Einstecksegment f. Strebe vorne	Laserteil Sperrh. 2 mm
2 Stck.		oberes Einstecksegment f. Strebe hinten	Laserteil Sperrh. 2 mm
2 Stck.		unteres Einstecksegment f. Strebe vorne	Laserteil Sperrh. 2 mm
2 Stck.		unteres Einstecksegment f. Strebe hinten	Laserteil Sperrh. 2 mm
8 Stck.		Ösen für Verspannung	Laserteil Sperrh. 2 mm
8 Stck.		Holmgurt Balsa 4 x 2 x 365 mm	ablängen
8 Stck.		Hilfsgurt Balsa 3 x 3 x 365 mm	ablängen
4 Stck.		Nasenleiste Buche rund 4 x 369 mm	ablängen

## Stückliste Querruder

2 Stck.	Q 1o	QR- Grundplatte oben	Laserteil Balsa 3 mm
2 Stck.	Q 1u	QR- Grundplatte unten	Laserteil Balsa 3 mm
4 Stck.	Q 1a	Diagonalsteg	Laserteil Balsa 3 mm
4 Stck.	Q 2	Abschlussrippe innen	Laserteil Balsa 2 mm
2 Stck.	Q 3o	Rippe Koppelgestänge oben	Laserteil Balsa 2 mm
2 Stck.	Q 3u	Rippe Koppelgestänge unten	Laserteil Balsa 2 mm
12 Stck.	Q 4	Rippe	Laserteil Balsa 2 mm
4 Stck.	Q 5	Verstärkung	Laserteil Balsa 2 mm
4 Stck.	Q 6	Diagonalrippe	Laserteil Balsa 2 mm
4 Stck.	Q 7	Innenverstärkung Scharnierleiste	Laserteil Balsa 2 mm
4 Stck.	Q 8	Scharnierleiste	Laserteil Balsa 2 mm
8 Stck.		Zapfen für Koppelgestänge	Laserteil Sperrh. 2 mm
2 Stck.		Ruderhorn für QR unten	Laserteil Sperrh. 2 mm
2 Stck.		Servoeinbaurahmen	Laserteil Sperrh. 2 mm

## Stückliste Mittelstück oben

2 Stck.	Mo 1	Innenrippe	Laserteil Pappel 3 mm
1 Stck.	Mo 2	Quersteg	Laserteil Pappel 3 mm
1 Stck.	Mo 3	Quersteg f. Steckung	Laserteil Pappel 3 mm
1 Stck.	Mo 4	Hilfsnasenleiste	Laserteil Balsa 3 mm
1 Stck.	Mo 5	Quersteg hinten	Laserteil Pappel 3 mm
1 Stck.	Mo 6	Auflageplatte	Laserteil Pappel 3 mm
1 Stck.	Mo 7	Verstärkung f. Verschraubung	Laserteil Pappel 3 mm
1 Stck.	Mo 8	Mittelrippe	Laserteil Pappel 3 mm
2 Stck.	Mo 9	Distanzrippe	Laserteil Balsa 3 mm
1 Stck.	Mo 10	untere Beplankung hinten	Laserteil Balsa 1,5 mm
1 Stck.	Mo 11	Aufdoppelung zu Mo5	Laserteil Balsa 2 mm
2 Stck.	Mo 12	Halbrippen hinten	Laserteil Balsa 2 mm
1 Stck.	Mo 13	obere Beplankung hinten	Laserteil Balsa 1,5 mm
1 Stck.	Mo 14	obere Beplankung vorne	Laserteil Balsa 1,5 mm
1 Stck.	Mo 15	untere Beplankung vorne	Laserteil Balsa 1,5 mm
1 Stck.	Mo 16	Nasenleiste	Laserteil Balsa 5 mm
2 Stck.	Mo 17	Deckrippe	Laserteil Balsa 2 mm
2 Stck.		Buchenrundstab 4 x 170 mm, Steckung	ablängen
4 Stck.		Buchenrundstab 3 x 15 mm, Dübel	ablängen
1 Stck.		Einschlagmutter M4	Fertigteil





## Stückliste Rumpf

2 Stck.	R 1	Rumpfsseitenwand	Laserteil Balsa 2 mm	1 Stck.	R 41	Halbspant zu R19	Laserteil Pappel 3 mm
2 Stck.	R 2	Seitenwandaufdoppelung	Laserteil Sperrh. 2 mm	1 Stck.	R 42	Aufdoppelung zu R41	Laserteil Pappel 3 mm
2 Stck.	R 3	Rumpfgurt oben / außen	Laserteil Balsa 2 mm	1 Stck.	R 43	Ringspant Rumpfkopf	Laserteil Pappel 3 mm
2 Stck.	R 4	Rumpfgurt unten / außen	Laserteil Balsa 2 mm	1 Stck.	R 44	Rückensteg zu R40 - 43	Laserteil Pappel 3 mm
2 Stck.	R 5	Rumpfindverbinder außen	Laserteil Balsa 2 mm	2 Stck.	R 45	Rückenbeplankung hinten	Laserteil Balsa 2 mm
2 Stck.	R 6	Rumpfgurt oben / innen	Laserteil Balsa 2 mm	2 Stck.	R 46	Rückenbeplankung vorne	Laserteil Balsa 2 mm
2 Stck.	R 7	Rumpfgurt unten / innen	Laserteil Balsa 2 mm	2 Stck.	R 47	Seitenbeplankung vorne	Laserteil Balsa 2 mm
2 Stck.	R 8	Verbindersteg innen	Laserteil Balsa 2 mm	3 Stck.	R 48	Scharnierösen zu SR	Laserteil Sperrh. 1,5 mm
2 Stck.	R 9	Verbindersteg innen	Laserteil Balsa 2 mm	1 Stck.	R 49	Anschlussbeplankung hinten	Laserteil Balsa 2 mm
2 Stck.	R 10	Verbindersteg innen	Laserteil Balsa 2 mm	1 Stck.	R 50	Anschlussbeplankung vorne	Laserteil Balsa 2 mm
2 Stck.	R 11	Verbindersteg außen	Laserteil Balsa 2 mm	1 Stck.	R 51	Abstreblager HL vorne	Laserteil Sperrh. 2 mm
2 Stck.	R 12	Verbindersteg außen	Laserteil Balsa 2 mm	1 Stck.	R 52	Abstreblager HL hinten	Laserteil Sperrh. 2 mm
2 Stck.	R 13	Diagonalstrebe außen	Laserteil Balsa 3 mm	2 Stck.	a	Fahrwerksaufnahme vorne	Laserteil Pappel 3 mm
2 Stck.	R 14	Diagonalstrebe außen	Laserteil Balsa 3 mm	2 Stck.	b	Fahrwerksaufnahme vorne	Laserteil Pappel 3 mm
2 Stck.	R 15	Diagonalstrebe außen	Laserteil Balsa 3 mm	2 Stck.	c	Fahrwerksaufnahme vorne	Laserteil Pappel 3 mm
1 Stck.	R 16	Kopfspant 1	Laserteil Pappel 3 mm				
1 Stck.	R 17	Kopfspant 2	Laserteil Pappel 3 mm				
1 Stck.	R 18	Zwischenboden vorne	Laserteil Pappel 3 mm				
1 Stck.	R 19	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 19a	Verstärkung	Laserteil Pappel 3 mm				
1 Stck.	R 20	Zwischenboden mitte	Laserteil Pappel 3 mm				
1 Stck.	R 21	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 22	Zwischenboden hinten	Laserteil Pappel 3 mm				
1 Stck.	R 22a	Servobrett	Laserteil Pappel 3 mm				
1 Stck.	R 23	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 24	Verschraubungsbrett	Laserteil Pappel 3 mm				
2 Stck.	R 24a	Aufdoppelungen	Laserteil Pappel 3 mm				
1 Stck.	R 25	Auflage f. Akkudeckel	Laserteil Pappel 3 mm				
1 Stck.	R 26	Rumpfwischendeckel	Laserteil Pappel 3 mm				
1 Stck.	R 27	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 28	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 29	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 30	Spant	Laserteil Pappel 3 mm				
1 Stck.	R 31	Halbspant zu R23	Laserteil Balsa 3 mm				
1 Stck.	R 31a	Halbspant zu R27	Laserteil Balsa 3 mm				
1 Stck.	R 32	Halbspant zu R28	Laserteil Balsa 3 mm				
1 Stck.	R 33	Abschlussleiste Rumpfrücken	Laserteil Balsa 3 mm				
2 Stck.	R 34	Formsteg Rumpfrücken	Laserteil Balsa 3 mm				
2 Stck.	R 35	Formsteg Rumpfrücken	Laserteil Balsa 3 mm				
1 Stck.	R 36	Beplankungsauflage Cockpit	Laserteil Balsa 2 mm				
1 Stck.	R 37	Beplankungsauflage Cockpit	Laserteil Balsa 2 mm				
1 Stck.	R 38	Distanzstück zu R36 / 37	Laserteil Balsa 3 mm				
1 Stck.	R 39	Beplankungsauflage Rumpfrücken	Laserteil Balsa 3 mm				
1 Stck.	R 40	Halbspant zu R21	Laserteil Pappel 3 mm				

### Für den Aufbau sind weiterhin im Bausatz enthalten:

je 1 Stck.	Aufbaustützen für das Heck St1 bis St4	Laserteil Pappel 3 mm
4 Stck.	Verriegelungskeile für die Baldachinstreben	Laserteil Pappel 3 mm
8 Stck.	Blebschrauben 2,2 x 20 mm für die Verriegelungskeile	
4 Stck.	Blebschrauben 2,2 x 20 mm für das Servobrett	
10 Stck.	Blebschrauben 2,2 x 20 mm für Motorhaube und Hauptfahrwerk	
2 Stck.	Balsa 4 x 2 x 30mm zum verschließen der Sporttasche in R30	
2 Stck.	Bowdenzugrohr 2 x 400 mm für die Höhenruderanlenkung	
1 Stck.	Bowdenzugrohr 3 x 10 mm für das Seitenruderscharnier	
1 Stck.	Bowdenzugrohr 3 x 20 mm für das Seitenruderscharnier	
2 Stck.	Stahldraht 0,8 x 500 mm für die Höhenruderanlenkung	
ca. 120 cm	Zwirn / Schnur für die Seitenruderanlenkung	
1 Stck.	Stahldraht 1,5 x 75 mm für den Sporn ( nach Biegeanleitung )	
2 Stck.	Einschlagmuttern M4 für die untere Flächenverschraubung	
	Buchendübel rund 3 mm, nach Plan / Bauanleitung ablängen	
	Buchendübel rund 4 mm, nach Plan / Bauanleitung ablängen	
3 Stck.	Kunststoffschrauben M4 für die Flächenbefestigungen	
4 Stck.	Gewindeschrauben / Muttern M3 für den Motorträger	
	Stahldraht 1 mm für die Anlenkung Servo / QR und zentrale HR-Anlenkung	
1 Stck.	Stellring innen 2,1 mm für die zentrale Höhenruderanlenkung	
	Stahldraht 1 mm für die HL-Abstreblager und QR.-Koppelgestänge	
	Bowdenzugrohr 2 mm für die HL-Abstreblager und QR.-Koppelgestänge	
	Schrumpfschlauch für die Verbindung Gestänge / Ruderhörner	
	Laserteile für den Akkudeckel	

## Stückliste Motorhaube

1 Stck.	Mh 1	Haubentrückwand	Laserteil Pappel 3 mm
2 Stck.	Mh 2	Spant	Laserteil Pappel 3 mm
1 Stck.	Mh 3	Spant	Laserteil Pappel 3 mm
1 Stck.	Mh 4	Beplankungsauflage	Laserteil Pappel 3 mm
1 Stck.	Mh 5	Mittelring	Laserteil Pappel 3 mm
1 Stck.	Mh 6	Distanzsteg oben (Lage beachten)	Laserteil Pappel 3 mm
6 Stck.	Mh 7	Distanzstege	Laserteil Pappel 3 mm
1 Stck.	Mh 8	Verschraubungssteg	Laserteil Pappel 3 mm
1 Stck.	Mh 9	Beplankungen oben	Laserteil Balsa 2 mm
1 Stck.	Mh 10	Beplankungen unten	Laserteil Balsa 2 mm
12 Stck.	Mh 11	Segment für Nasenklotz	Laserteil Balsa 5 mm
4 Stck.	Mh 12	Segment für Nasenklotz	Laserteil Balsa 5 mm
4 Stck.	Mh 13	Segment für Nasenklotz	Laserteil Balsa 3 mm
1 Stck.	Mh 14	Frontplatte	Laserteil Pappel 3 mm

## Stückliste Motorträger

1 Stck.	Mt 1	Rückwand	Laserteil Pappel 3 mm
2 Stck.	Mt 2	Seitenteil	Laserteil Pappel 3 mm
1 Stck.	Mt 3	Boden	Laserteil Pappel 3 mm
1 Stck.	Mt 4	Frontplatte	Laserteil Pappel 3 mm
1 Stck.	Mt 5	Verschraubungssteg für Haube	Laserteil Pappel 3 mm
2 Stck.		Blechsrauben 2,2 x 20 mm für die Verschraubung der Haube	

## Stückliste Baldachin

2 Stck.	B 1	Strebe vorne	Laserteil Sperrh.2 mm
2 Stck.	B 2	Strebe hinten	Laserteil Sperrh.2 mm
2 Stck.	B 3	Zwischenstück	Laserteil Sperrh.2 mm
1 Stck.	B 4	Auflageplatte	Laserteil Pappel 3 mm
4 Stck.	B 5	Halteösen	Laserteil Pappel 3 mm
1 Stck.	B 6	untere Beplankung	Laserteil Balsa 1,5 mm
2 Stck.	B 7	Strebenaufdoppler	Laserteil Balsa 1 mm
2 Stck.	B 8	Strebenaufdoppler	Laserteil Balsa 1 mm
2 Stck.	B 9	Strebenaufdoppler	Laserteil Balsa 1 mm
2 Stck.	B 10	Strebenaufdoppler	Laserteil Balsa 1 mm
2 Stck.		Buchendübel 4 x 24 mm für die Flächensteckung	

## Stückliste Fahrwerk

2 Stck.	Fahrwerksdraht vorne 2 mm nach Biegeanleitung	
1 Stck.	Fahrwerksdraht hinten 2 mm nach Biegeanleitung	
1 Stck.	Hauptwerksdraht 3 x 190 mm	
2 Stck.	Stellringe 2,1 mm innen	
4 Stck.	Stellringe 3,1 mm innen	
8 Stck.	Blechschraube 2,2 x 15 mm	
2 Stck.	Federungskulisse innen	Laserteil Sperrh. 2 mm
4 Stck.	Abdeckung Federungskulisse außen	Laserteil Sperrh. 1,5 mm
2 Stck.	Fahrwerksverkleidung vorne	Laserteil Sperrh. 2 mm
2 Stck.	Fahrwerksverkleidung hinten	Laserteil Sperrh. 2 mm
2 Stck.	Gummiringe f. Federung	

## Stückliste Räder

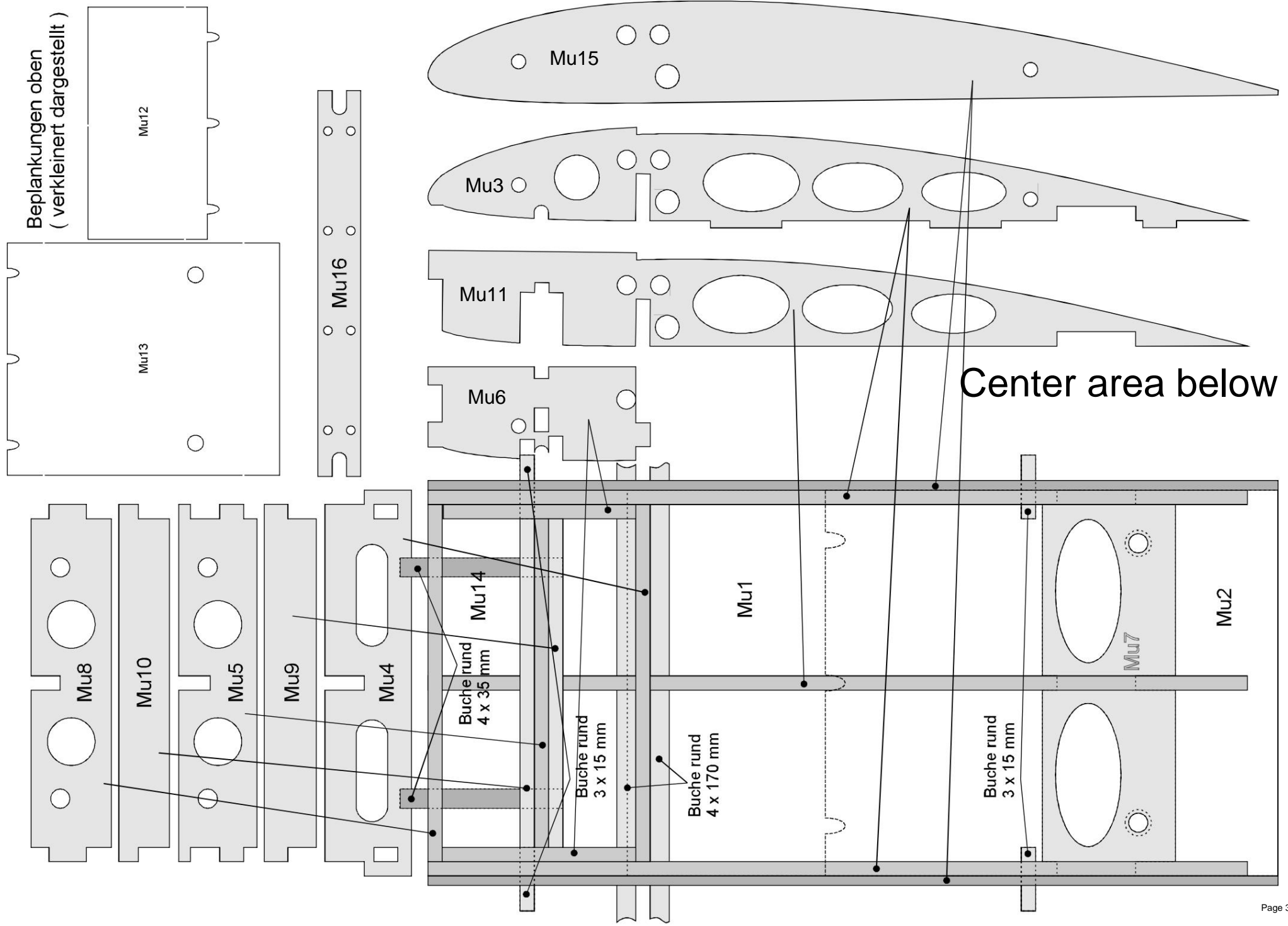
2 Stck.	Innenradring	Laserteil Sperrh. 2 mm
36 Stck.	Speiche	Laserteil Sperrh. 1,5 mm
8 Stck.	Aufdoppelungsring	Laserteil Pappel 3 mm
4 Stck.	äußerer Felgenreing	Laserteil Pappel 3 mm
2 Stck.	Radachse, Messingrohr 4/3 x 14 mm	
2 Stck.	Moosgummireifen, 10 x 210 mm, gem. Bauanleitung	

## Stückliste Tragflächenstreben

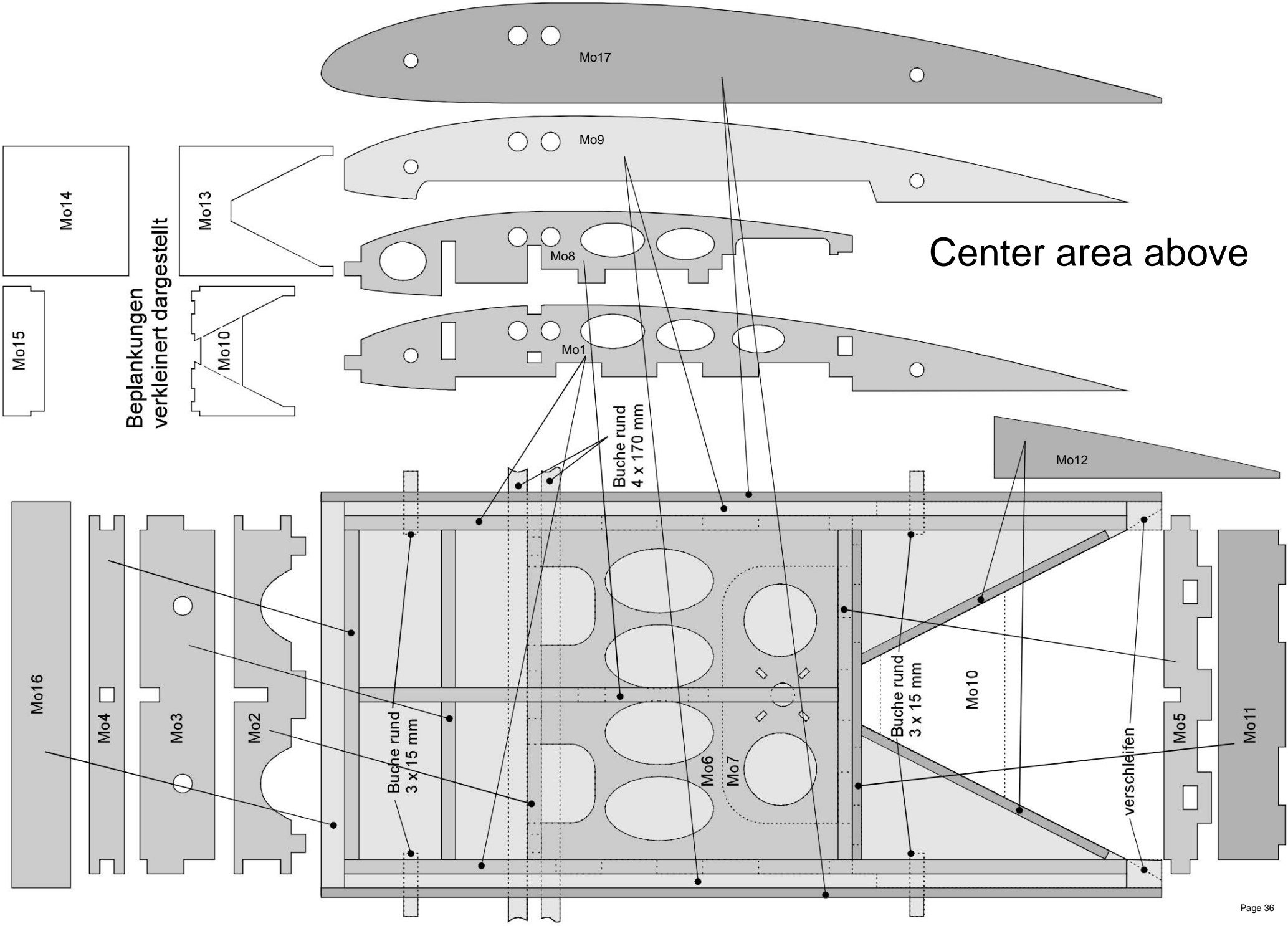
2 Stck.	Strebe vorne ( Kennzeichn. V )	Laserteil Sperrh. 2 mm
2 Stck.	Strebe hinten ( Kennzeichn. H )	Laserteil Sperrh. 2 mm
4 Stck.	Aufdoppler zu Strebe V	Laserteil Balsa 1 mm
4 Stck.	Aufdoppler zu Strebe H	Laserteil Balsa 1 mm

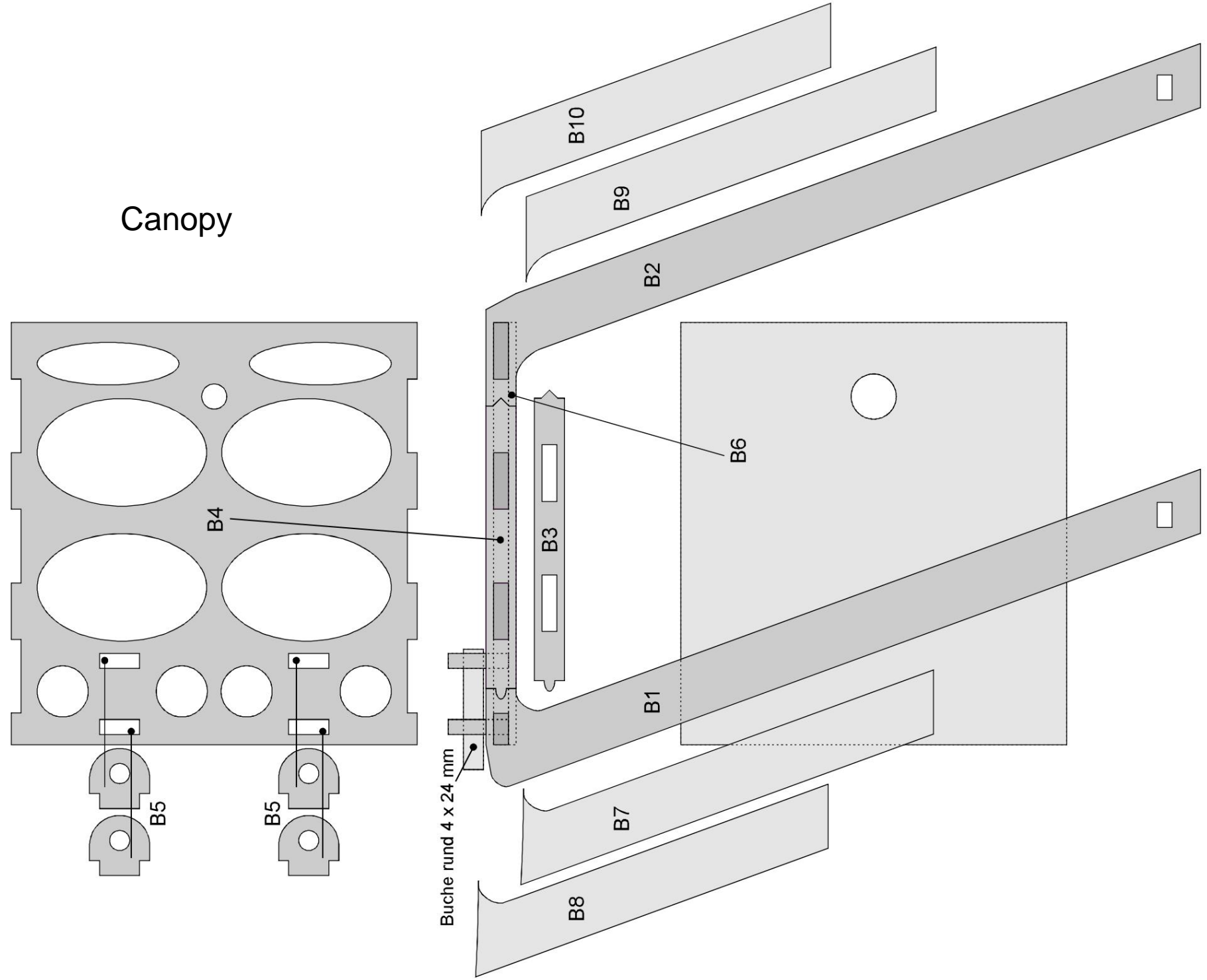
## Stückliste Leitwerksstreben

2 Stck.	Strebenverkleidung	vorne	Laserteil Balsa 2 mm
2 Stck.	Strebenverkleidung vorne		Laserteil Balsa 2 mm
4 Stck.	Stahldraht 1 mm		
4 Stck.	Bowdenzugrohr 2 mm		



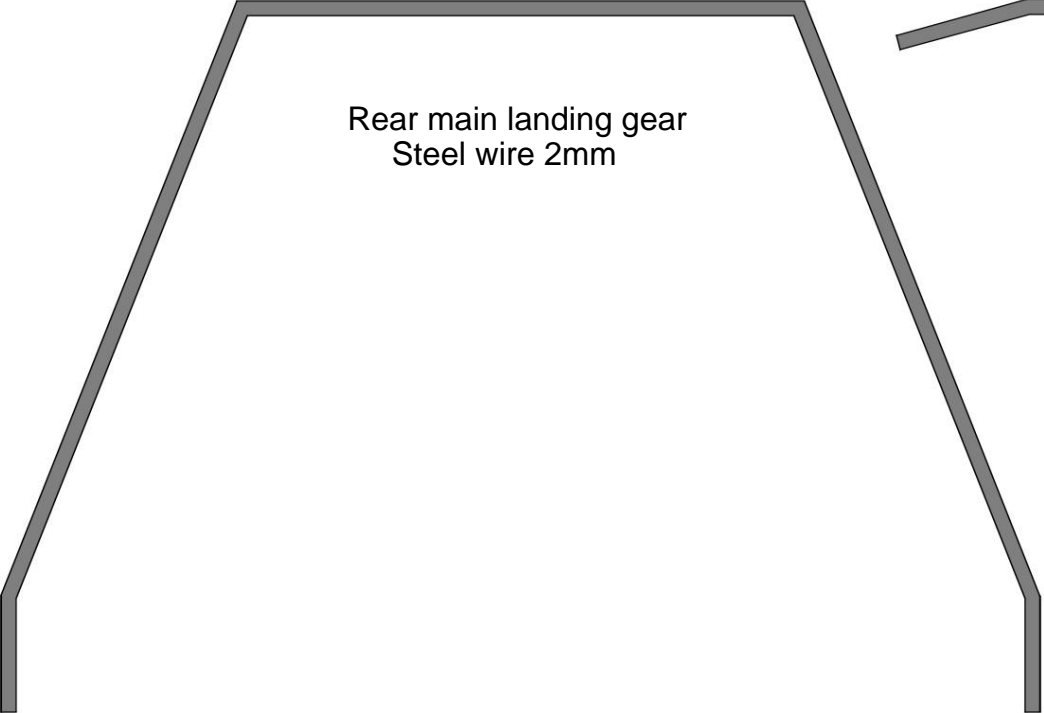
Center area below





# Canopy

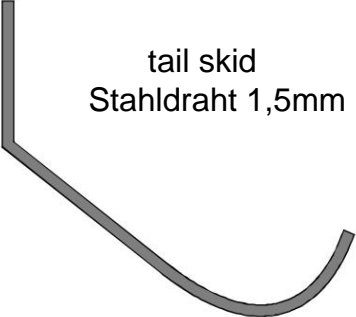
**Bending instructions 1:1**



Rear main landing gear  
Steel wire 2mm



Front main landing gear  
Steel wire 2mm



tail skid  
Stahldraht 1,5mm

