

**Message started by Lars Wikstrom on 09. May 2012 at 18:28**

Title: **SHK build**

Post by **Lars Wikstrom** on **09. May 2012 at 18:28**

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Hi,

I have just started the build of an SHK and will try to share the progress. There might be gaps in time depending on my work but the plan is to have the glider ready this summer.

The kit was bought from Fraes Fritz in Germany <http://www.fraesfritz.de/> and consists of a glasfibre fuzelage and wings and elevator in CNC parts, I also bought most of the balsa and plywood from Fritz who so far has been very helpful and believe it or not the kit was delivered with an invoice to be paid via bank transfer.

I hope that you enjoy the build and I am looking forward to your comments :)

Lars

Title: **Re: SHK build**

Post by **Lars Wikstrom** on **09. May 2012 at 18:40**

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Here are some pictures of the kit on my building board and yes it is in our kitchen, bless my wife :)  
First pictures is of the ribs in their bags, one bag per section of the kit

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Post by **Lars Wikstrom** on **09. May 2012 at 18:46**

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Here are some more pictures of the kit, the main wing spar and the fuz.

Lars

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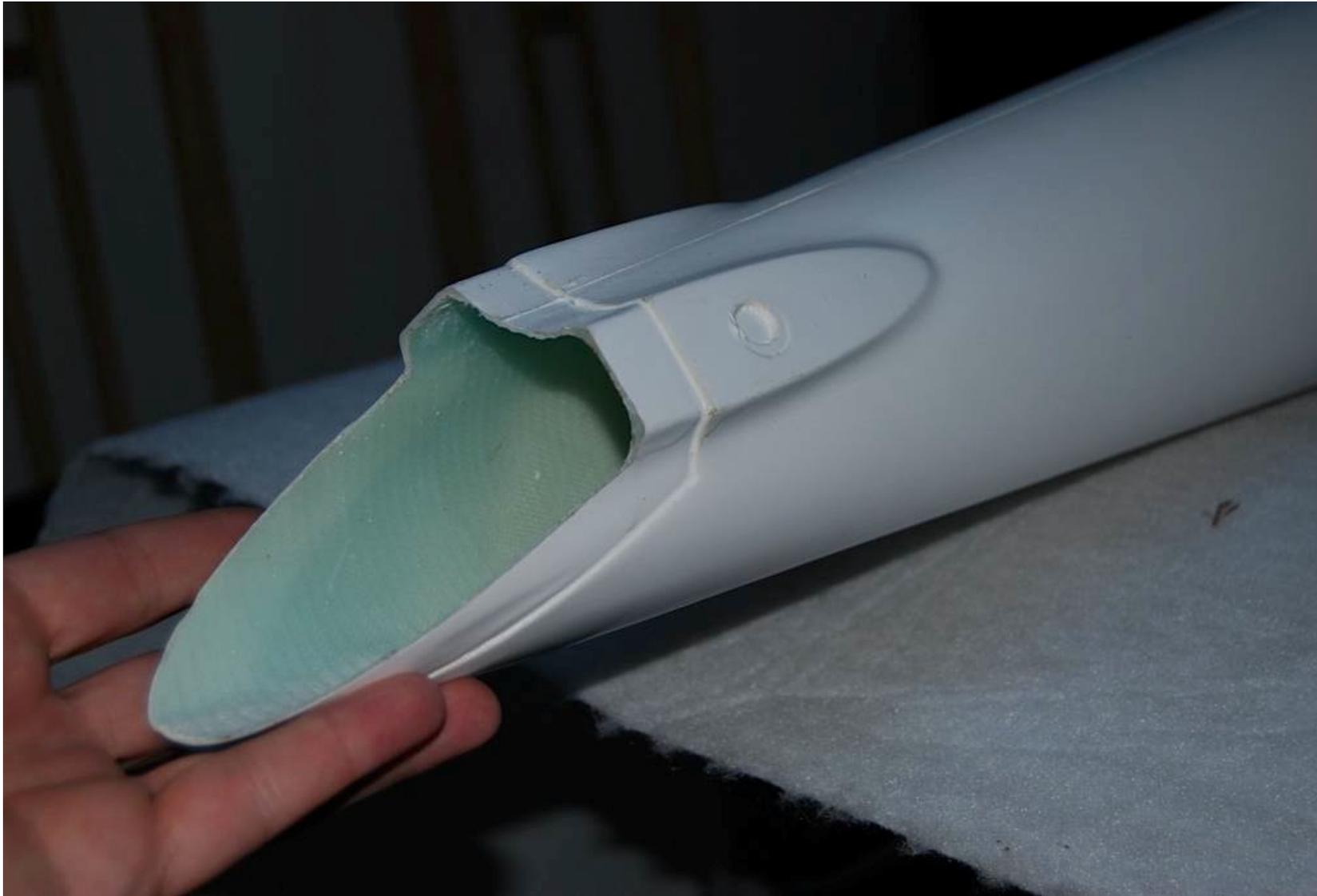
Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **09. May 2012 at 18:54**

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Last pictures is of the extra balsa, spars and 4 \* 370 mm air brakes I bought from Fritz.  
I have also bought a FEMA landing gear to be installed later on.

More to follow, if I can tempt somewhat, the build has started... ;)









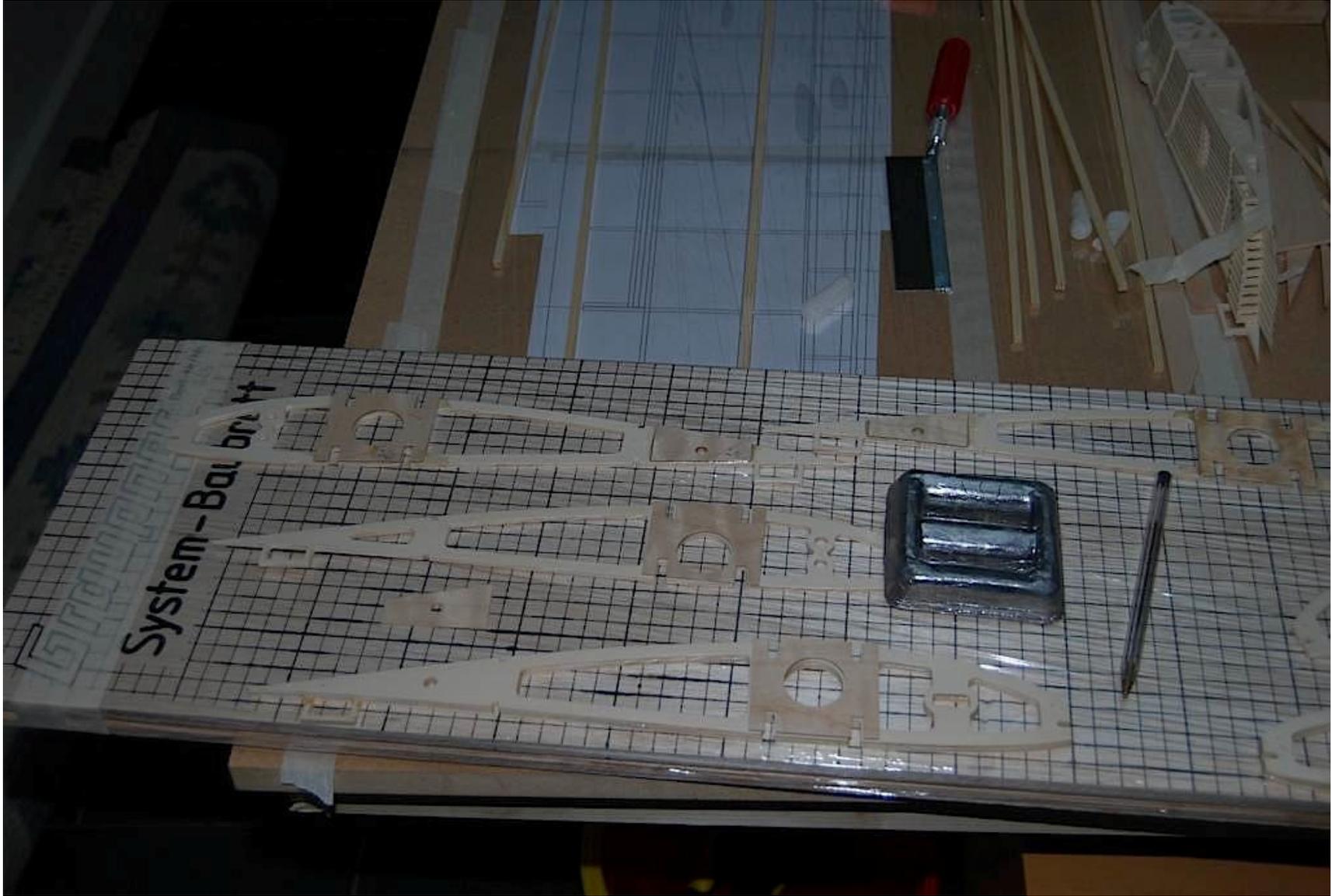
Title: **Re: SHK build**

Post by **Lars Wikstrom** on **25. May 2012 at 18:28**

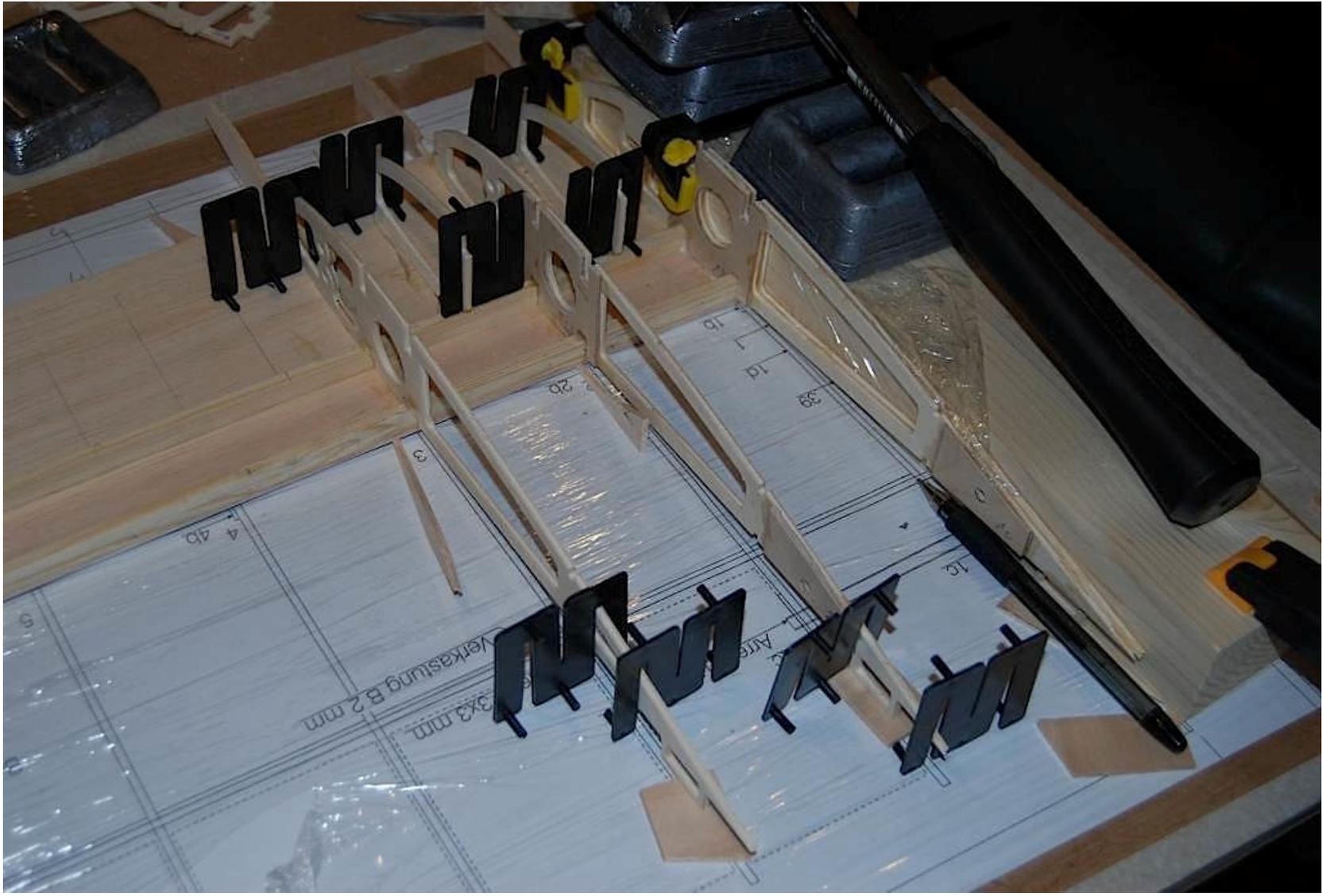
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here is an update on the build. I have now built halfway on one wing and learning by mistakes, on rib at the air brake was broken due to my heavy fingers... All parts go together very well.

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Title: **Re: SHK build**

Post by **Lars Wikstrom** on **25. May 2012 at 18:32**

More pictures and it obvious why we need model magazines. This is where I am now. I hope that you all have a good weekend of flying.

Lars







Title: **Re: SHK build**  
Post by **Tonyh** on **25. May 2012 at 20:14**

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I know where to come when i need to balance the Falcon.just make sure you put all that lead back in the safe at night :D :D :D  
T.

Title: **Re: SHK build**  
Post by **B Sharp** on **26. May 2012 at 08:57**

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I have just spotted your build thread Lars - very interesting! I had a look at the suppliers website and there are a few nice models there, also the kit quality looks good. I will be very interested to see the tail actuation mechanism as I will be going that route myself in the not too distant future.  
Brian. :)

Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **28. May 2012 at 11:23**

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Hi Brian,  
I have a good idea about the tail mechanism thanks to friend Chris Newton, I will post a drawing later on. Yes the quality of the kit is very good with one exception, the seam on the fuz could have been better and ideas for the tail provided, the than that all parts fit together like Lego. I have taken a different approach for he wings by gluying the first spar to the sheeting and then used the ribs to position the second spar followed by contact glue and the ribs. Easy.  
Cheers Lars

Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **28. May 2012 at 14:11**

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Last post by me should not pass the exam in English, I blame it on an lpad :)

Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **01. Jun 2012 at 14:44**

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Air brakes... the glider is supplied with 4 \* 370 mm air brakes of type Schempp-Hirth, two per wing, the wing however is prepared for air brakes up the size of 50 cm.  
I will be flying mostly on slope and with sometimes limited space for landing I want the air brakes to be sufficient. The wing profile is SD 7062.

Do you think that the 4 \* 370mm air brakes are enough?

Thanks Lars

Title: **Re: SHK build**

Post by **B Sharp** on **01. Jun 2012 at 15:31**

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I take it that the designer is advocating one set top opening and one set bottom opening (over and under) Lars. I would hate to see the wing with them mounted end to end. :o I suspect that with this set-up you will rarely ever have them more than half open as they do have considerable stopping power. Be careful if you slap them away to carry out a flythrough - you could find the aircraft sitting in a heap at your feet.  
Brian. :)

Title: **Re: SHK build**

Post by **Lars Wikstrom** on **02. Jun 2012 at 09:47**

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*B Sharp wrote on 01. Jun 2012 at 15:31:*

I take it that the designer is advocating one set top opening and one set bottom opening (over and under) Lars. I would hate to see the wing with them mounted end to end. :o I suspect that with this set-up you will rarely ever have them more than half open as they do have considerable stopping power. Be careful if you slap them away to carry out a flythrough - you could find the aircraft sitting in a heap at your feet.  
Brian. :)

Thanks Brian, that answered the question if it was enough ;D and yes it is top and bottom.  
Lars

Title: **Re: SHK build**

Post by **Lars Wikstrom** on **25. Jun 2012 at 13:51**

Things has happened and here are picture of the progress. I must also tell you about the build that Sandy Alan in the US is doing of the same kit, I think a combination of the two threads gives you a complete picture of the quality of the kit and some of the challenges. Sandy is doing a fantastic work on the fuzelage but have bought the wings and elevators ready built from Fritz.

The last pictures show you the connector I am planning to use for the aileron and that I have replaced the trailing edges described 2.5mm balsa with 2.4mm Obechi, I have also moved the sheeting a further 15mm into the wing to strengthen thia otherwise weak area.

Lars





Title: **Re: SHK build**

Post by **Lars Wikstrom** on **25. Jun 2012 at 14:01**

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I forgot to mention that I have replaced the prescribed webbing of 2mm balsa with 1.5mm plywood up to the ailerons and with 0.8 going forward. Flying at the slope put high loads on the wings and if you are 5-600 meters up you might not see that you have gotten into high winds. I have now done the 0.8mm now I only need to cut/saw the 1.5mm..... that is the painful part of the wings. The cabling is from PowerBox systems and seems to be of very high quality, unfortunately only of 120cm length, otherwise perfect.

Lars

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 DSC\_0354.JPG (Attachment deleted)

 DSC\_0355.JPG (Attachment deleted)

 DSC\_0356.JPG (Attachment deleted)

Title: **Re: SHK build**

Post by **Wolf D.** on **30. Jun 2012 at 04:46**

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Lars

Nice work so far, keep plugging at it. Hey who make those servo leads in the above image?

Peace, Wolf

Title: **Re: SHK build**

Post by **Lars Wikstrom** on **01. Jul 2012 at 19:17**

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*BD5Wingnut wrote on 30. Jun 2012 at 04:46:*

Lars

Nice work so far, keep plugging at it. Hey who make those servo leads in the above image?

Peace, Wolf

Hi Wolf,

Thanks, I will continue building this week and will post the progress.

Those servo leads are made by Powerbox Systems.

Lars

Title: **Re: SHK build**

Post by **Wolf D.** on **03. Jul 2012 at 03:45**

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Thanks, Lars.

Title: **Re: SHK build**

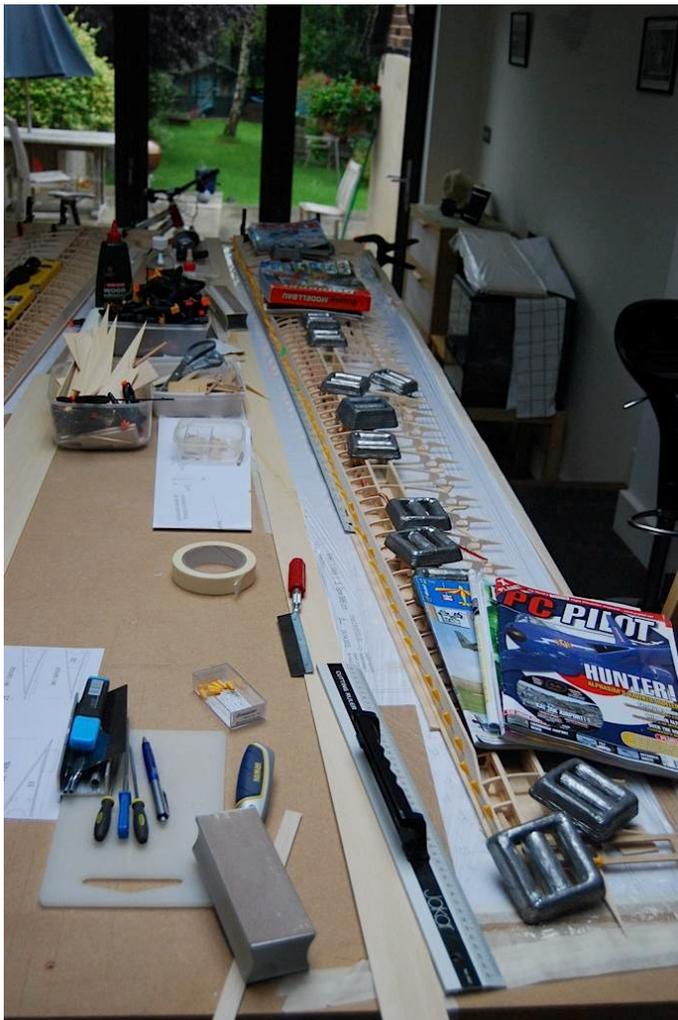
Post by **Lars Wikstrom** on **11. Aug 2012 at 17:52**

An update.

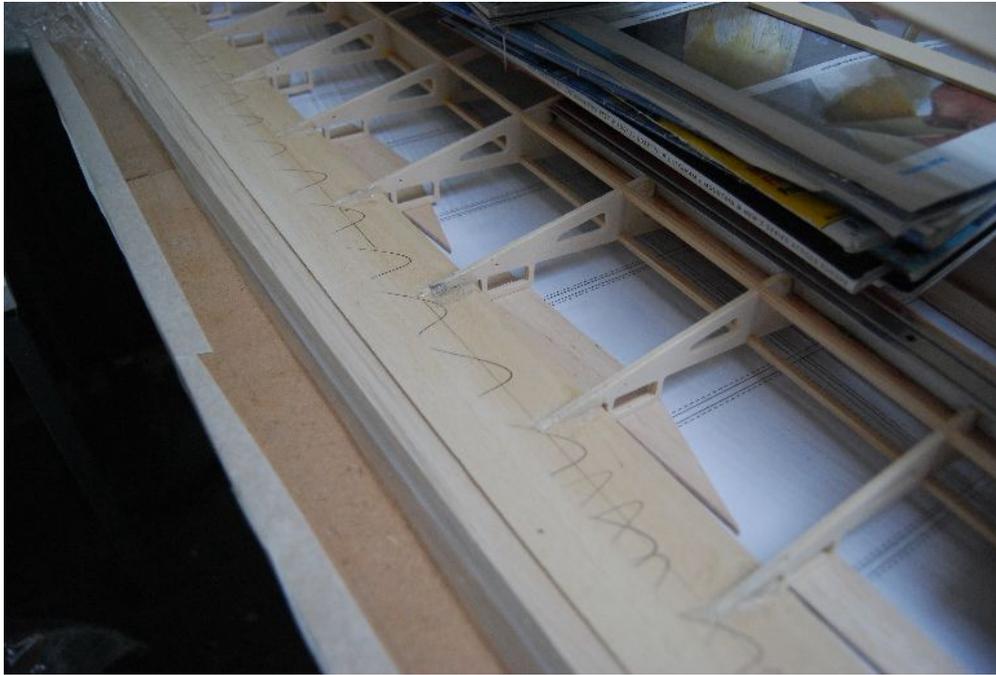
Leading edge

Thinned down the with obechi replaced trailing edge and built a support for the next step, adding the TE top sheeting.

Picture of the top sheeting with a 2.5 cm carbon tape hold in place by a thin layer of 3M77 spray







Title: **Re: SHK build**

Post by **Lars Wikstrom** on **11. Aug 2012 at 17:57**

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TE being glued in place, I used ZAP resin and a total of 40 ml which was to little and left the TE in need of some additional work, for wing nr 2 I used 80 ml which was much better.

Added cabling to wing, used a very handy mesh and cable holders, you can also see the coming wing lock on the left of the cable as a recessed bolt

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Title: **Re: SHK build**

Post by **Lars Wikstrom** on **11. Aug 2012 at 18:03**

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Cable exit for the brake servo.

Prepared the sheeting.

Glued the top top front sheeting using contact adhesive, worked very well and before I did a test to evaluate how long you could wait with gluing. With a thin layer the "stick" effect felt very much the same between 10+15 minutes drying time before contact was made, a slight less stick was achieved at 20 but still very enough.

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Title: **Re: SHK build**

Post by **Lars Wikstrom** on **11. Aug 2012 at 18:12**

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Second TE made using twice the amount of resin.

There will some resin to sand of but I prefer that compared to a weak TE :(

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Title: **Re: SHK build**  
Post by **Wolf D.** on **12. Aug 2012 at 05:16**

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Looking good. Very nice attention to detail on the wire routing.

Wolf

Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **12. Aug 2012 at 09:41**

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*BD5Wingnut wrote on 12. Aug 2012 at 05:16:*

Looking good. Very nice attention to detail on the wire routing.

Wolf

Hi Wolf,

Thanks, if I would do it again I would have taken the same approach but added a tube to pull the wiring through.

Lars

Title: **Re: SHK build**  
Post by **Lars Wikstrom** on **12. Aug 2012 at 09:50**

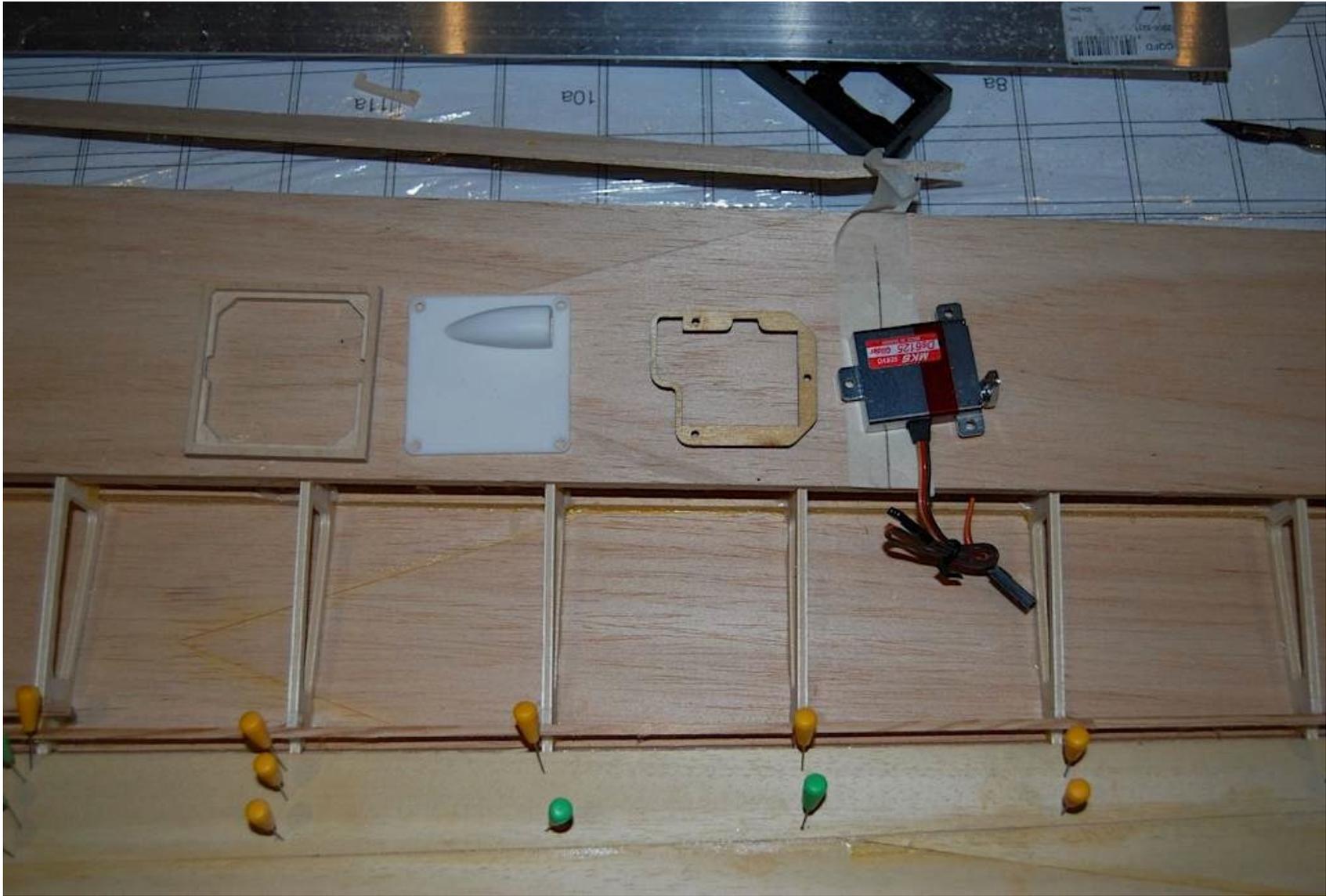
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Some good advice please. I am planning for the installation of the aileron servos. I have bought some frames and lids to help but after switching to MKS servos they are not a perfect fit or I should say combination.

Any ideas? I would like to be able to open the hatch and check the installation or perhaps replace the servo.

IN the pictures you see the servo space and and the frames I have access to. How would you go buy to support the MKS frame and position it in an exact position?

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Title: **Re: SHK build**

Post by **Lars Wikstrom** on **12. Aug 2012 at 09:54**

I have to tell you that I am very please with this type of epoxy, it is tixotropix i.e. it sits where I put it and it is VERY strong, does not crack and you have several hours of work / adjustment before it sets, fantastic :D . I have bought it from two vendors but assume it is the same content.



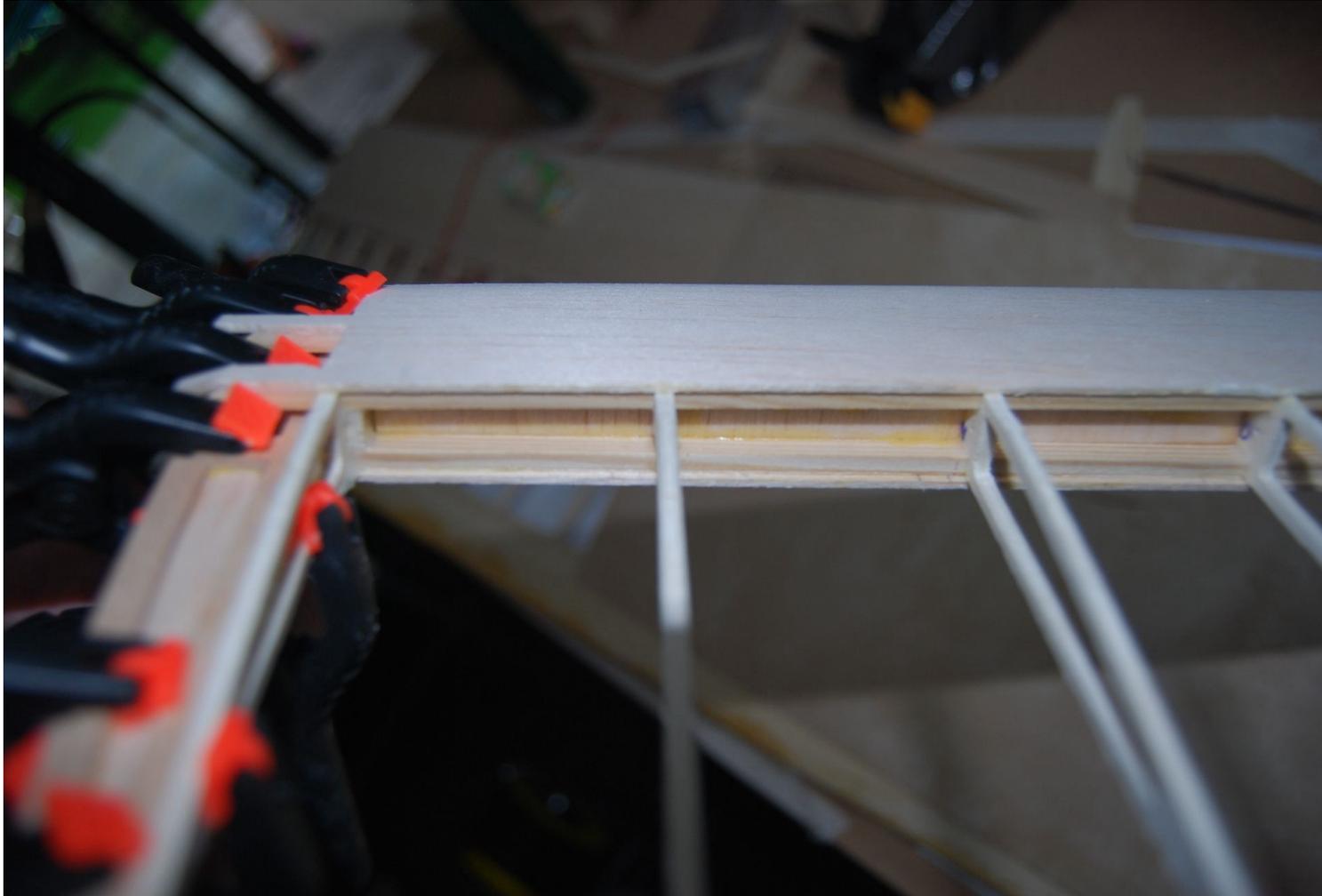
Title: **Re: SHK build**

Post by **Lars Wikstrom** on **12. Aug 2012 at 09:57**

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Some more progress on the elevator half's. The TE is really thin and in my eyes weak, this will be a thermal ship

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Title: **Re: SHK build**

Post by **Lars Wikstrom** on **12. Aug 2012 at 10:44**

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Please do not miss my questions in regards to servo installation :-/

Title: **Re: SHK build**

Post by **Wolf D.** on **12. Aug 2012 at 18:27**

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Lars

I do not see what is wrong with the servo install. Those are some very nice frames and covers, they look like a perfect fit.

Also, that epoxy system, prolly same as my 3M Scotch Weld system here in the states, works great. I use the DP-100 (fast cure) DP-190 (slow cure) these cure rigid and are good general purpose adhesives. The DP-400 series cures to a semi-rigid which is best for high shock loads, etc.. I keep the 3M stuff in the fridge on the top shelf to extend it's shelf life.

Wolf

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