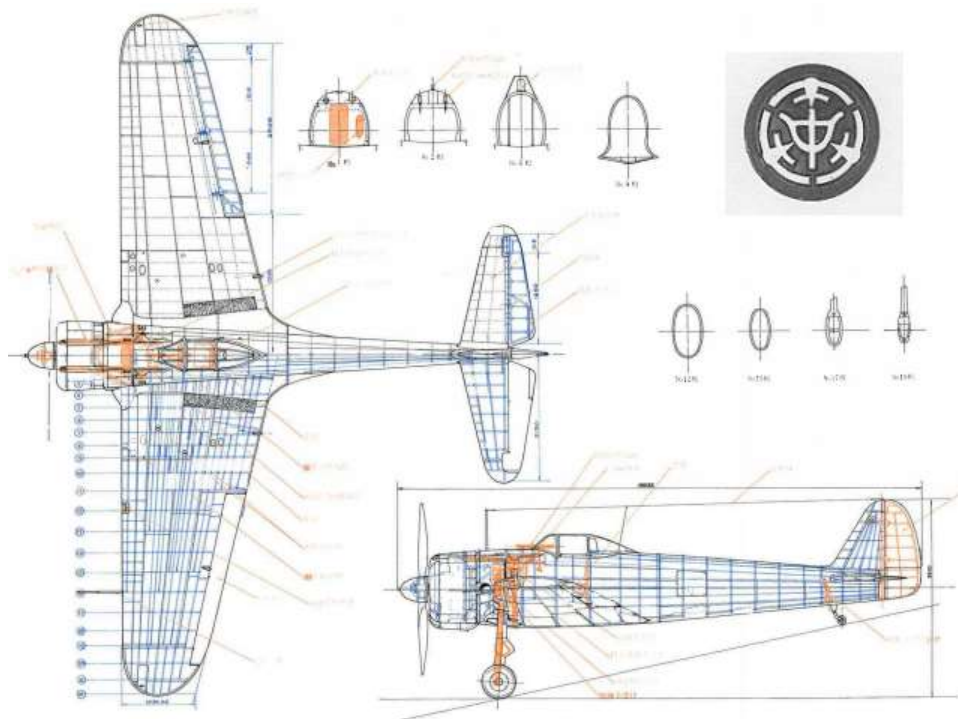


NAKAJIMA KI-43 HAYABUSA



Revision 2

Nakajima KI-43 Hayabusa
ZAPATA WARBIRDSRC Aircraft
Assembly instructions

Introduction

Zapata WarbirdsRC Aircraft, is taking one step forward from the standards to produce attractive, well known, easy to assembly military model airplanes in the range of 1/4 scale. Our designs consist in laser cut parts, fiberglass and plastic parts. They are also design around commercial accessories and parts easy to get.

Take your time reviewing our set of drawings and this manual. As you can see our drawings are for assembly only. This model is not to scratch-build over plans. You don't need a set of plans to build our models, simply follow the sequence of construction on a flat bench. In case that you really want a hard copy of the plans, each kit comes with an electronic full size set of plans that can be taken to your prefer copy center. Provide us with your email to send the electronic set of plans.

List of additional wood to finish this project:

50 sheets of – 1/8" x 36" x 4" balsa – fuse and wing sheeting
9 sheets of – 3/32" x 36" x 4" balsa – stab and fin sheeting
2 sheets of – 3/8" x 36" x 4" balsa – wing LE
1 sheet of -3/8" x 36" x 3" balsa - stab and fin LE
1 sheet of – 1/64" x 12" x 24" plywood or use thin G10 sheet (wing fillets)
33 sticks of – 1/4" x 1/4" x 36" balsa – fuse and wing stringers
2 stick of - 3/16" x 3/16" x36" balsa – fin and stab stringer
4 sticks of – 1/8" x 1/4" x 36" balsa – wing stringers
4 sticks of – 3/16" x 3/8" x 36" balsa – wing stringers
4 sticks of – 1/4" x 1/2" x 36" (hard balsa or hardwood) – wing center section main spars
4 stick of – 1/4" x 1/2" x 36" hard balsa – wing outer panels main spars
4 sticks of – 1/2" x 1/2" x 7.5" hard maple – **Landing gear rails**
4 sticks of – 1" round x 1.5" maple – cowl installation

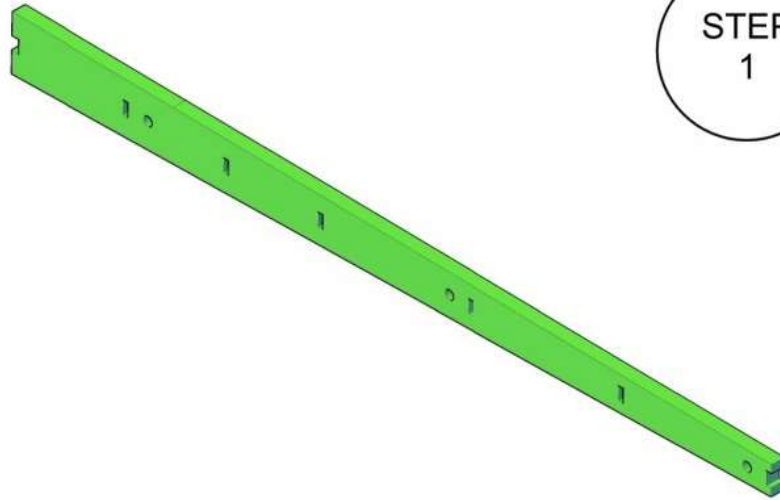
Please read this manual entire before starting any steps, so you will be familiar to the way this sequence of building the model is presented. Follow this assembly sequence in order. We encourage you to assembly first the tail group, then the wing mid-section, outer wing panels and finally the fuselage so the wing saddle and wing bolt plate are easier to install.

The following building sequence shows actual 3D parts from the software program used on the kit design. The graphics show complete sections of parts with the list of part numbers and the way they must be assembled. If you have any problem or question following the sequence, please contact us to help you solve the problem.

STABILIZER

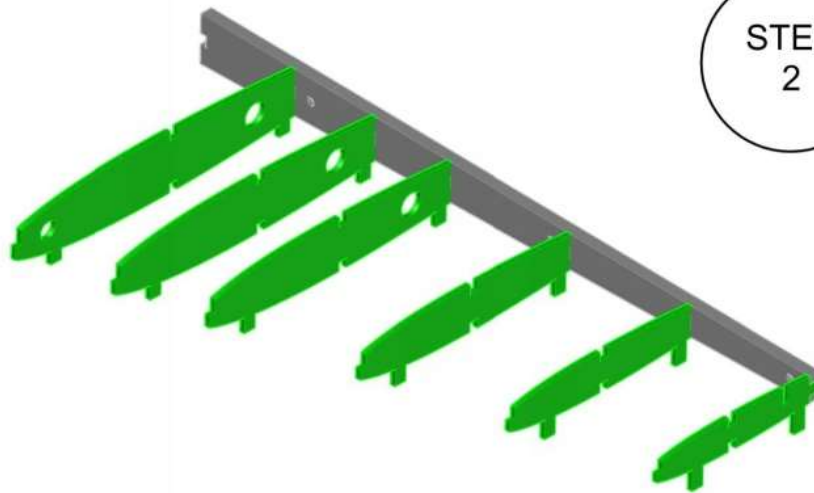
The design is for two piece stabilizer that can be glue in place permanently or can be removable using a simple system secured by screws. Plans show Robart hinges at the scale locations but you can add more hinges if you prefer. Remember to add balsa block to secure each hinge side. For additional information on the stab lock system, see the end of this manual.

STEP
1



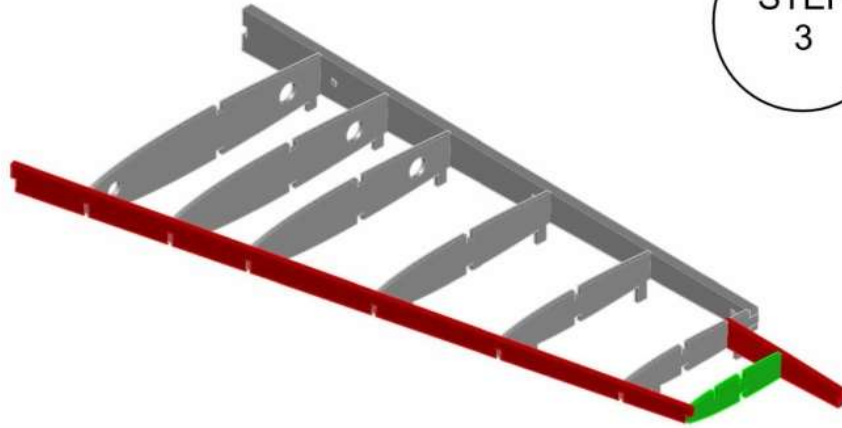
- Prepare stab rear spar S10.

STEP
2



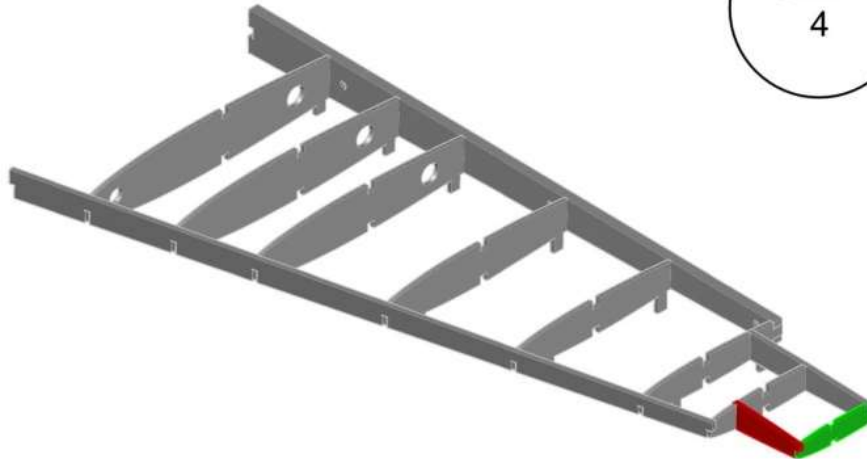
- Glue stab ribs S2 to S7 on S10 back spar slots. Make sure each rib is perpendicular to the spar.

STEP
3



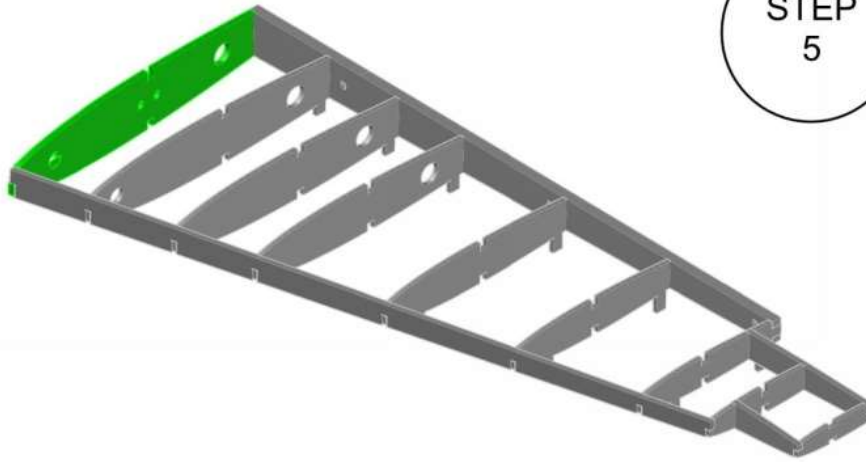
- Glue front L.E. support S11 to stab ribs S2 to S7.
- Glue S13 perpendicular to S7 and slide rib S8 between S11 and S13. Make sure S8 is center along the stab length and apply CA.

STEP
4



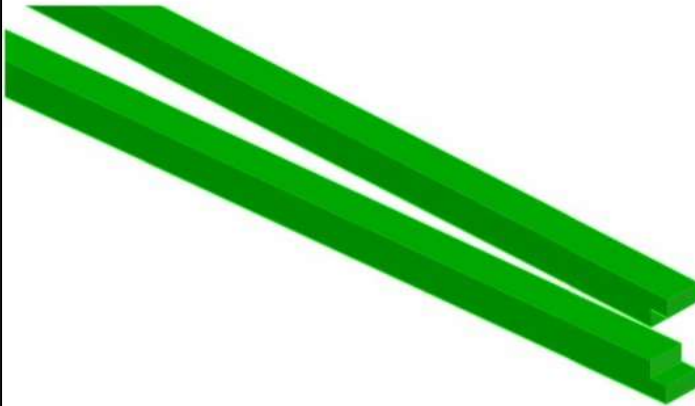
- Glue front L.E. support S12 perpendicular to S8 in the front slot.
- Slide stab rib S9 between S13 and S12. Check the S9 is centered along the stab. Apply CA.

STEP
5



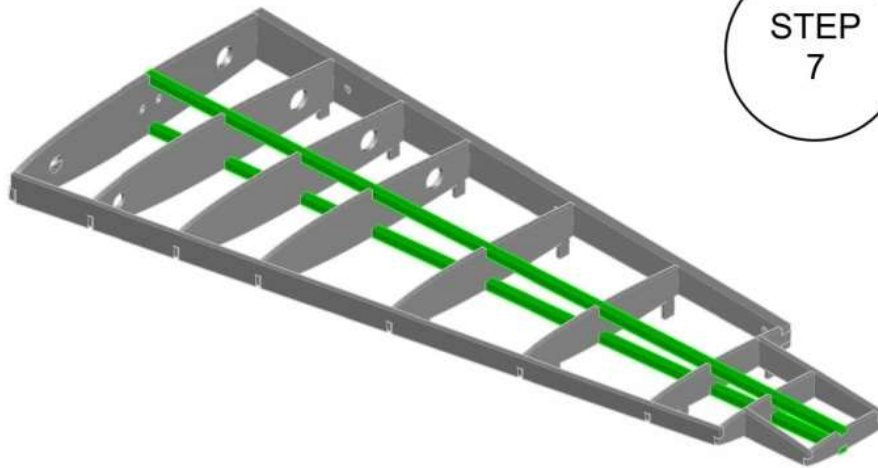
- Place S1 in first slot of S10 and S11. Check alignment and apply medium CA.

STEP
6



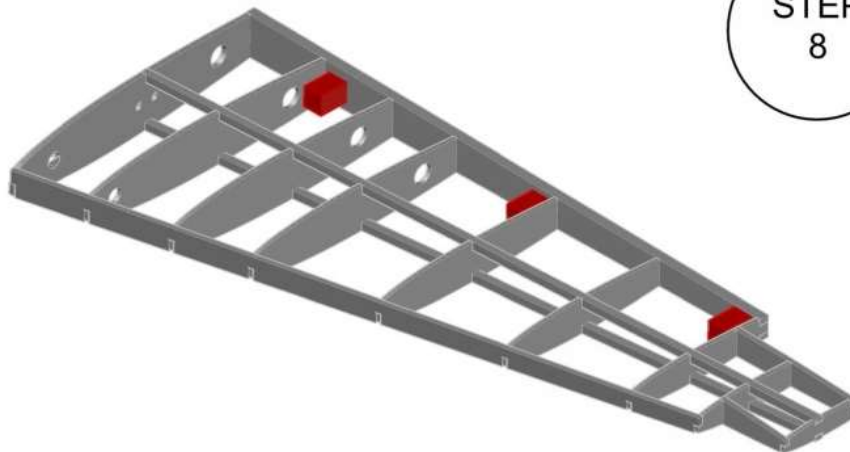
- Prepare stab top and bottom spars out of $\frac{3}{16}$ " sq. hard balsa.
- Cut the spars leaving a $\frac{3}{16}$ " x $\frac{3}{32}$ " notch that will fit at S9 rib.

STEP
7



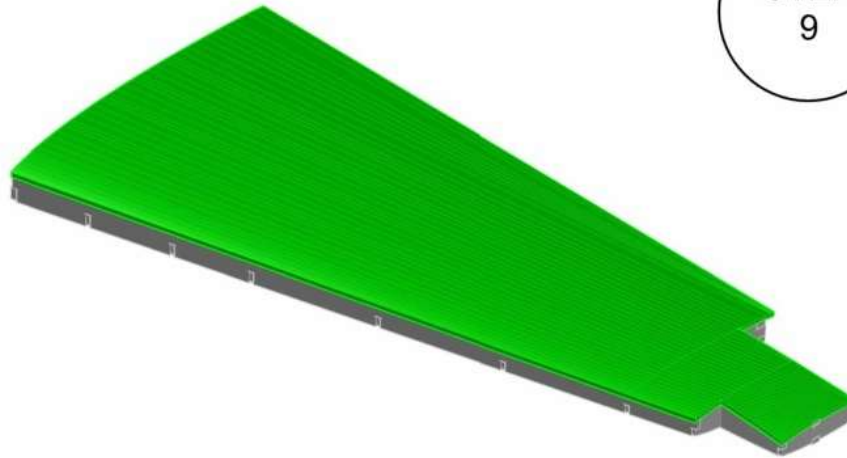
- Place first top spar over rib notches. Check perfect fit and glue in place with medium CA. Now turn over stab frame and glue bottom spar with medium CA. Make sure not twist the frame.

STEP
8



- Cut hinge blocks out of minimum 1/2"x1/2"x1.5" balsa and glue them in front of each hinge location.

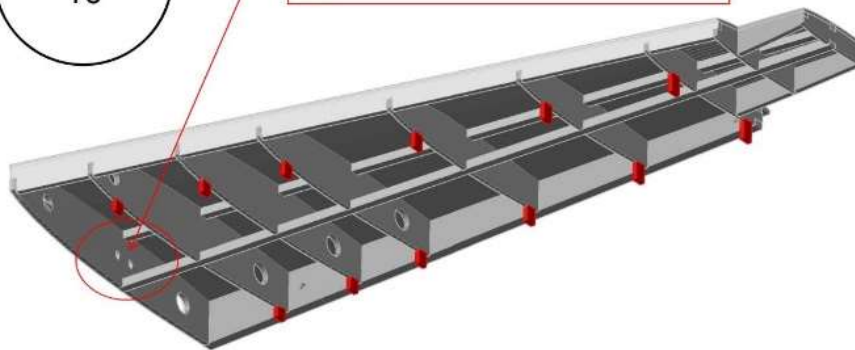
STEP
9



- Prepare top skin out of 3/32" balsa. Bake sure to leave 1/2" of excess out of the back spar to create the shroud covering the elevator L.E.
- Glue in place and cut to the edge of the frame.

STEP
10

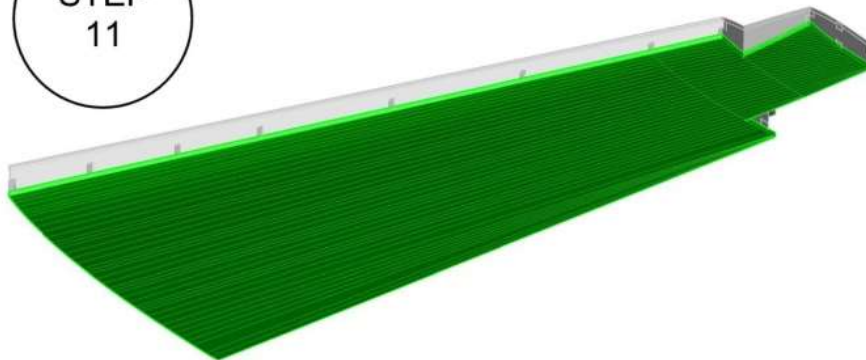
REMOVABLE STAB LOCK SYSTEM (MERLYN SYSTEM).
INSTALL INSIDE HARD BLOCK & CHECK WITH FUSELAGE
FRAME, BEFORE BOTTOM SKIN. USE FRONT HOLE FOR
ONE STAB SIDE AND BACK HOLE FOR THE OTHER STAB
SIDE. SCREW FROM SIDE OF FUSELAGE FROM BELOW
STAB



- Cut off stab ribs support tabs.
- Slide fit the stab tube sleeve and glue in place with epoxy
- Slide front anti-rotation pin out of 3/13 round hardwood, check to be parallel to stab tube and epoxy in place.
- Sand bottom of ribs to prepare surface for bottom skin.

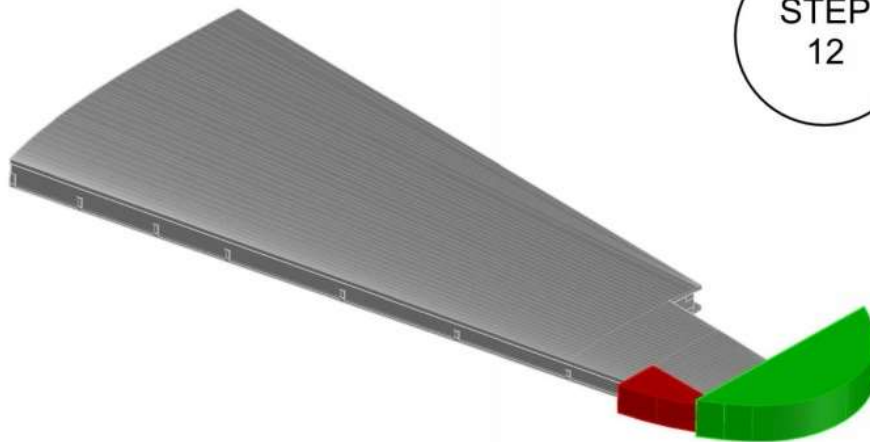
Before bottom skin install stabilizer lock system (Merlyn system recommended) for removable stab or if preferred glue stab after finishing fuselage.

STEP
11

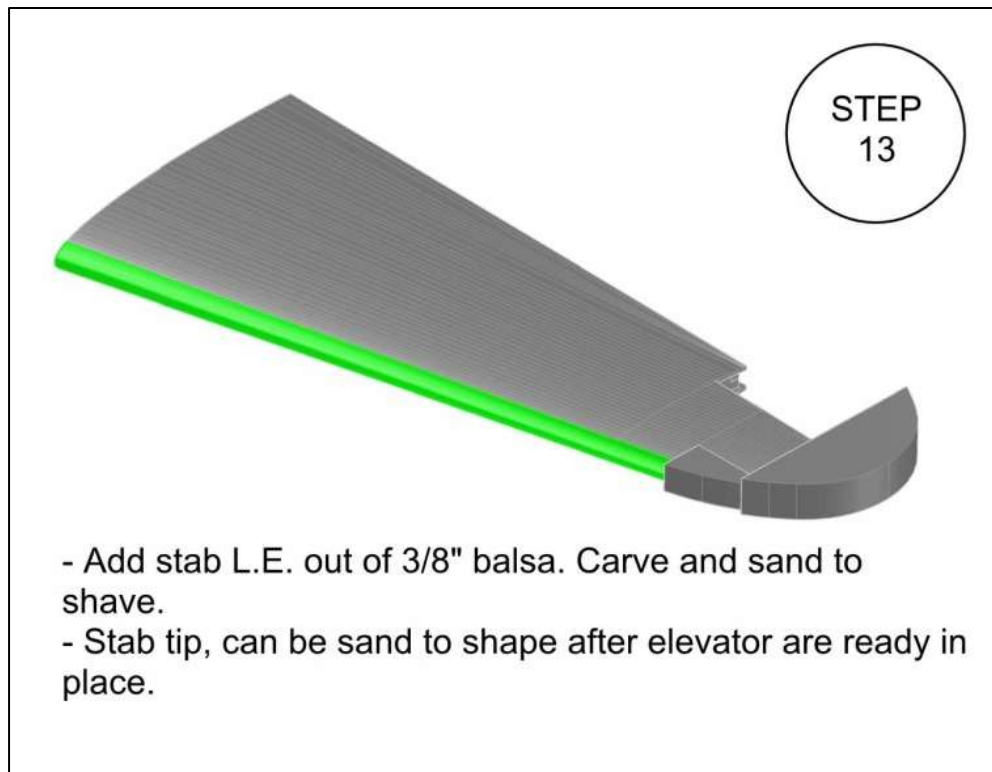


- Prepare bottom skin out of 3/32" balsa, check good fit and glue in place with epoxy or elmer's glue.
- Once dry trim to frame's shape leaving 1/2" out of back spar to create shroud over elevator L.E.

STEP
12

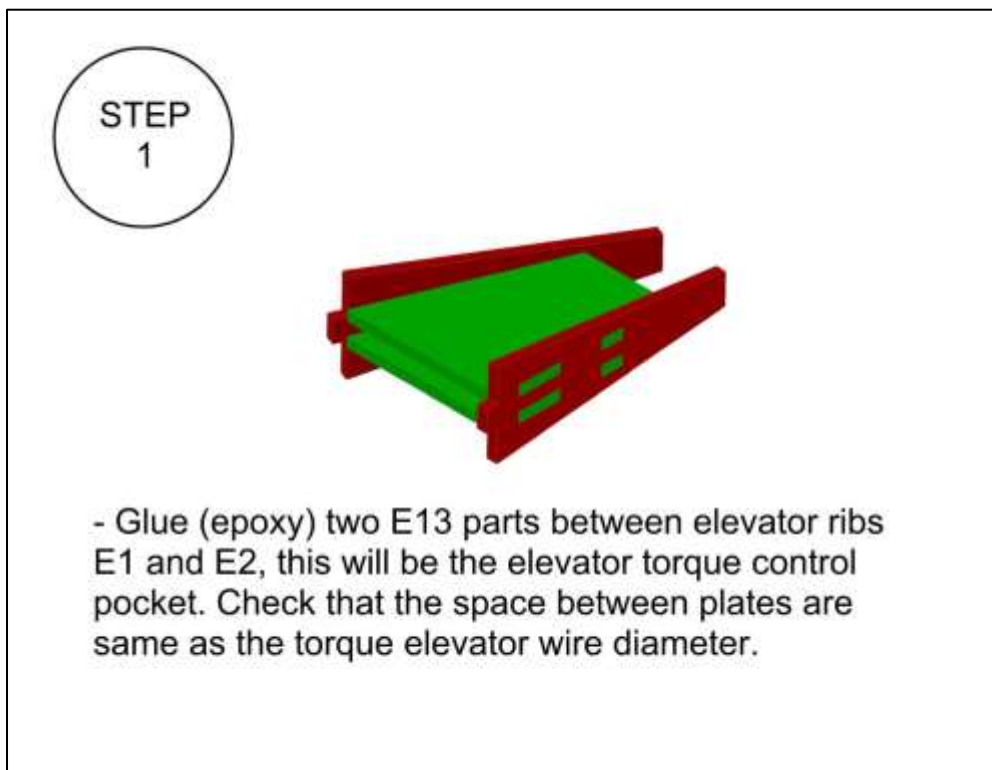


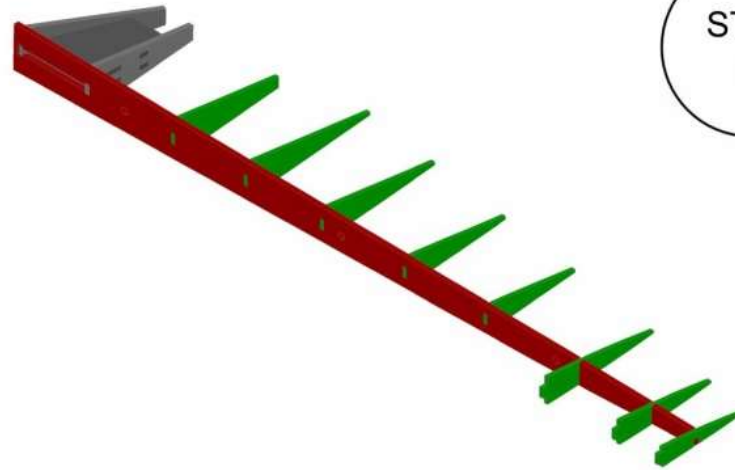
- Add S14 and S15 balsa blocks to form stab tip.
- Do not shape the blocks before you install stab L.E.



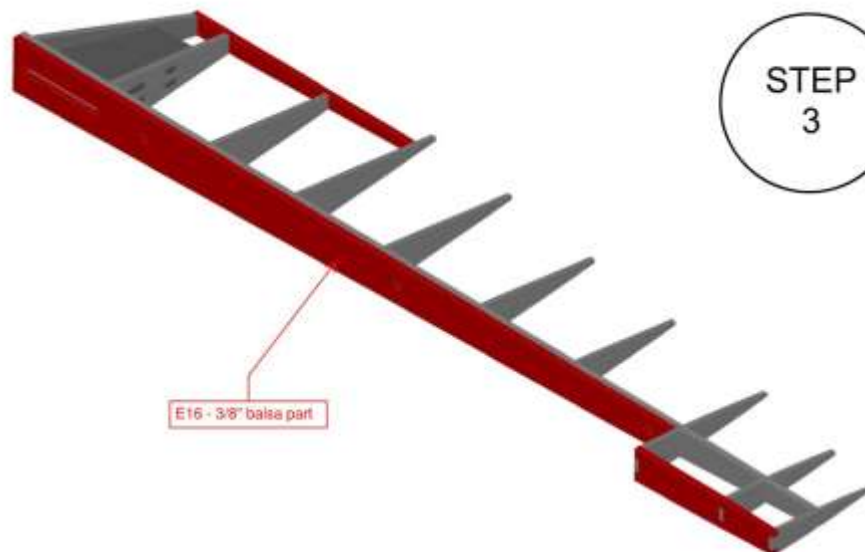
ELEVATORS

Elevators are build using 1/8" balsa ribs and 1/32" ply skin. Also you can build for the custom G10 pin hinge system or you can add balsa block for Robart hinges.



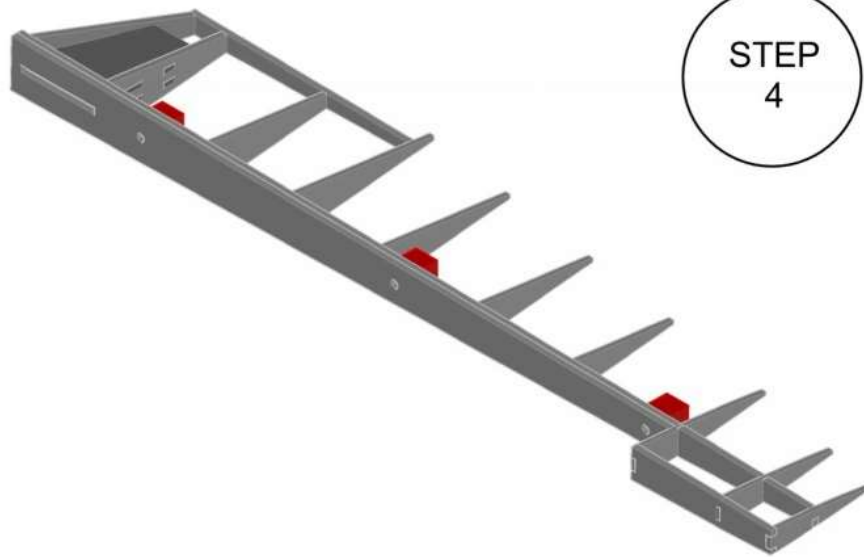


- Glue parts from step 1 over E11, then glue elevator ribs E3 to E10 on E11.

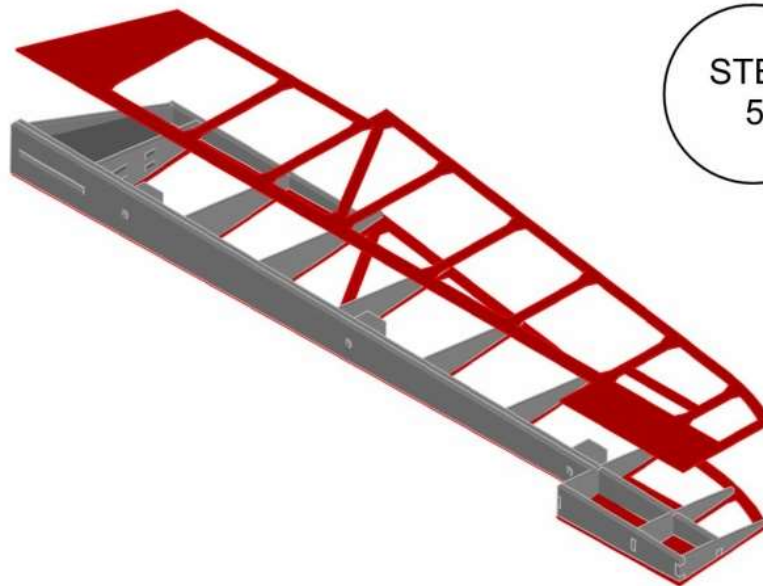


E16 - 3/8" balsa part

- Glue part E17 to elevator ribs E1, E2, E3, and E4.
Glue stab tab L.E. support E12 on ribs E8 to E10.
Glue elevator L.E. E16 in front of E11.

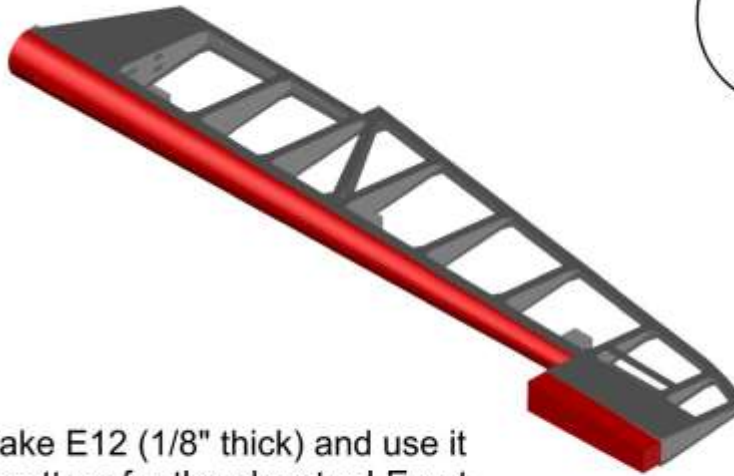


- Add hinge blocks at locations. Glue (epoxy) them to E11



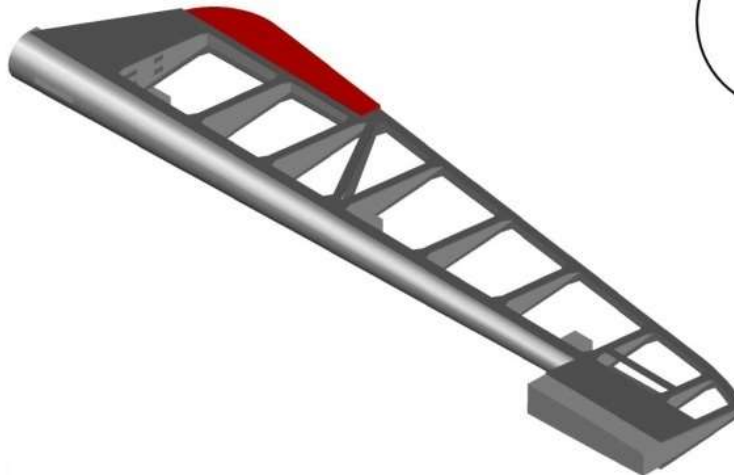
- Prepare the elevator surface by sanding ribs and glue elevator skin E14 on both sides for each elevator.

STEP
6



- Take E12 (1/8" thick) and use it as pattern for the elevator LE out of 3/8" balsa.
- Sand to shape elevator and elevator tab compensator LE.

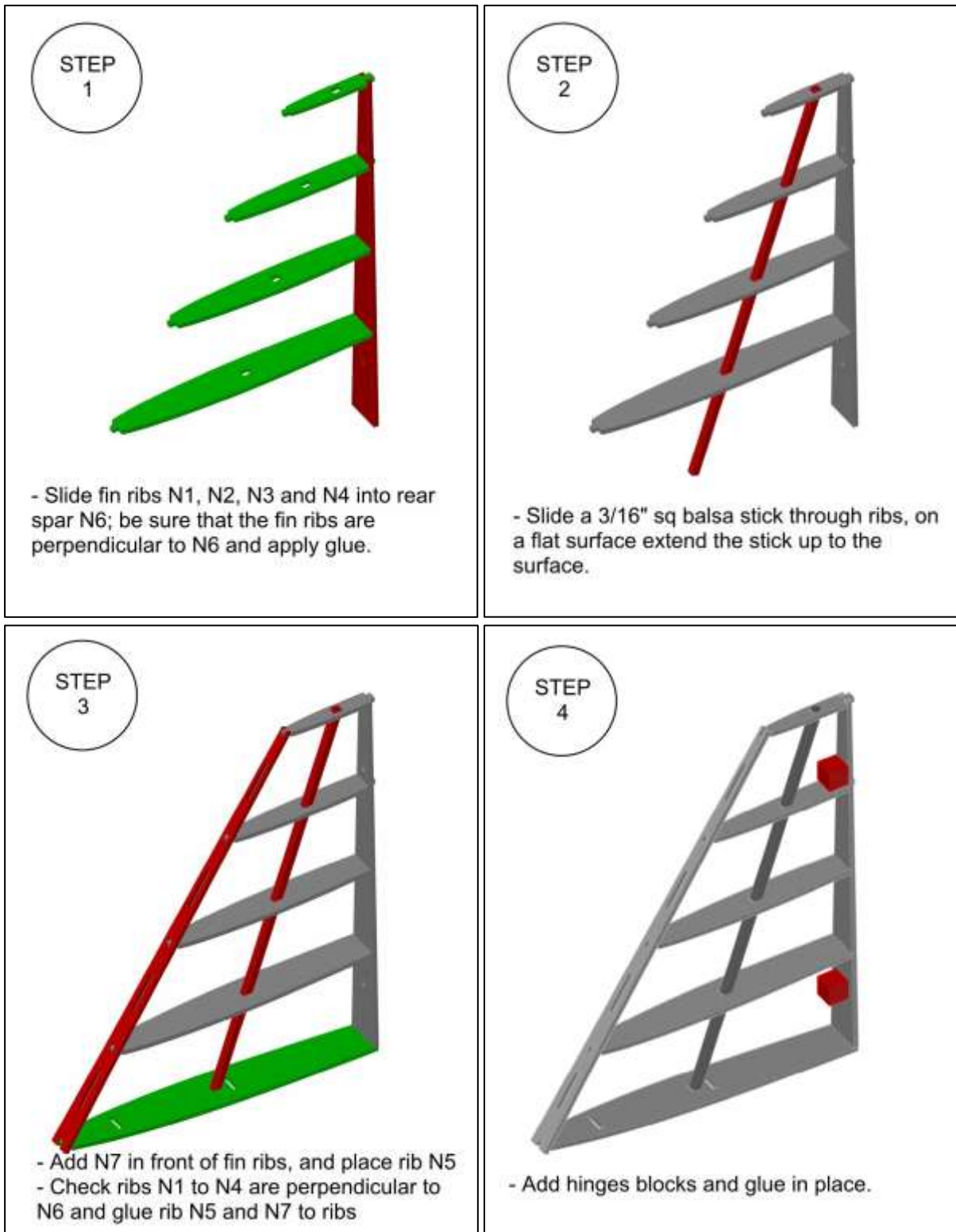
STEP
7



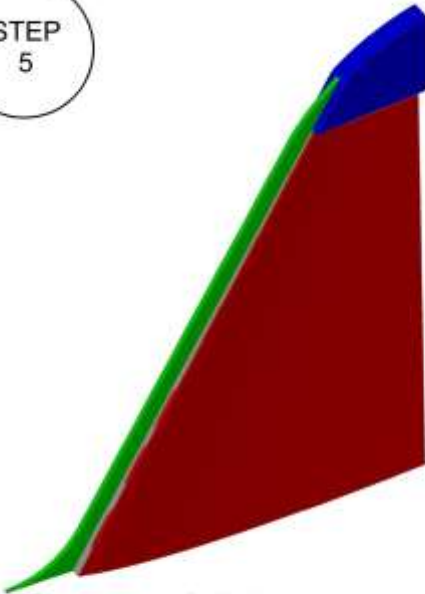
- Cover whole unit with fabric or similar. Take ET (elevator trim) sand to shape, fiberglass the part and glue it to the elevator.

VERTICAL FIN

The fin is partially build aside and later incorporated as part of the fuselage to blend before fiberglassing the model. Use large Robart hinges.



STEP
5



- Add fin skin out of 3/32" balsa, leaving 3/8" skin out of the back for rudder L.E. shroud.
- Glue fin tip N9 and L.E. guide N8

STEP
6



- Add L.E. balsa, sand and shape.

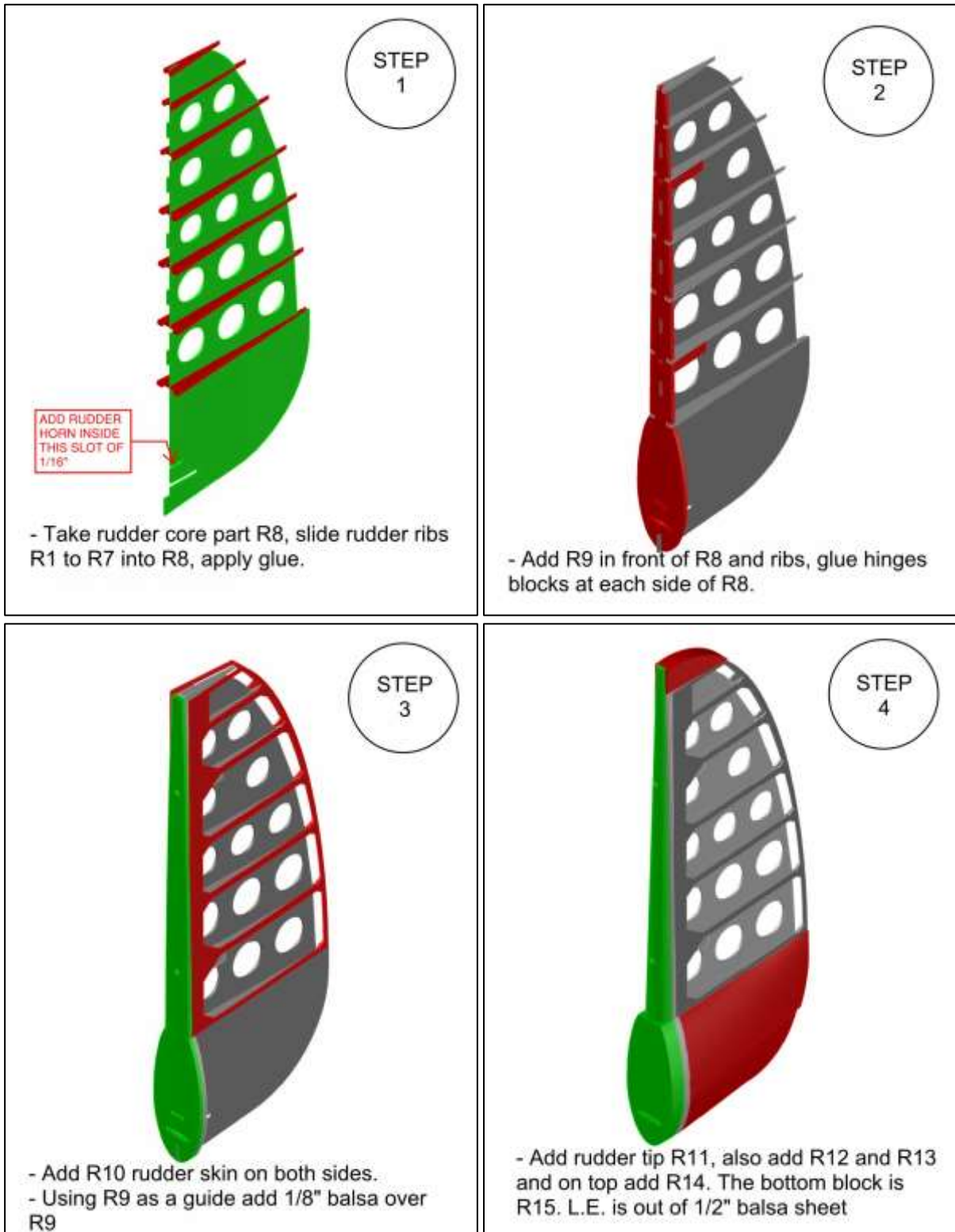
STEP
7



- Test the fit of the fin unit to F18 former. (Do not glue these parts together yet)
- Once the fuselage is ready the fin will be glue to the fuselage.

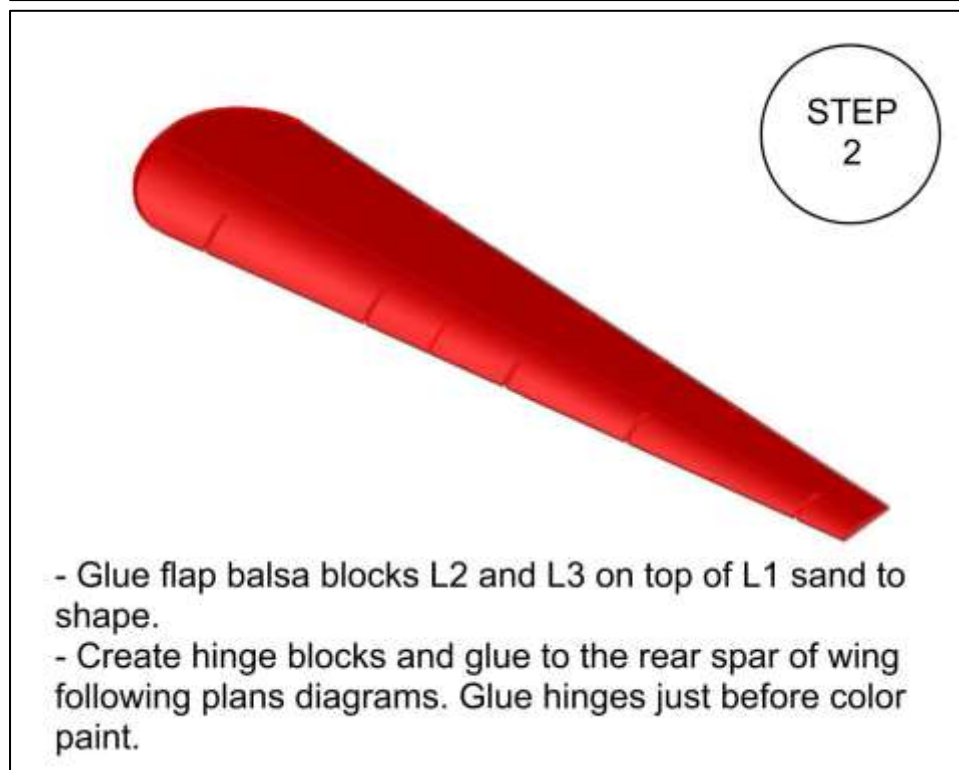
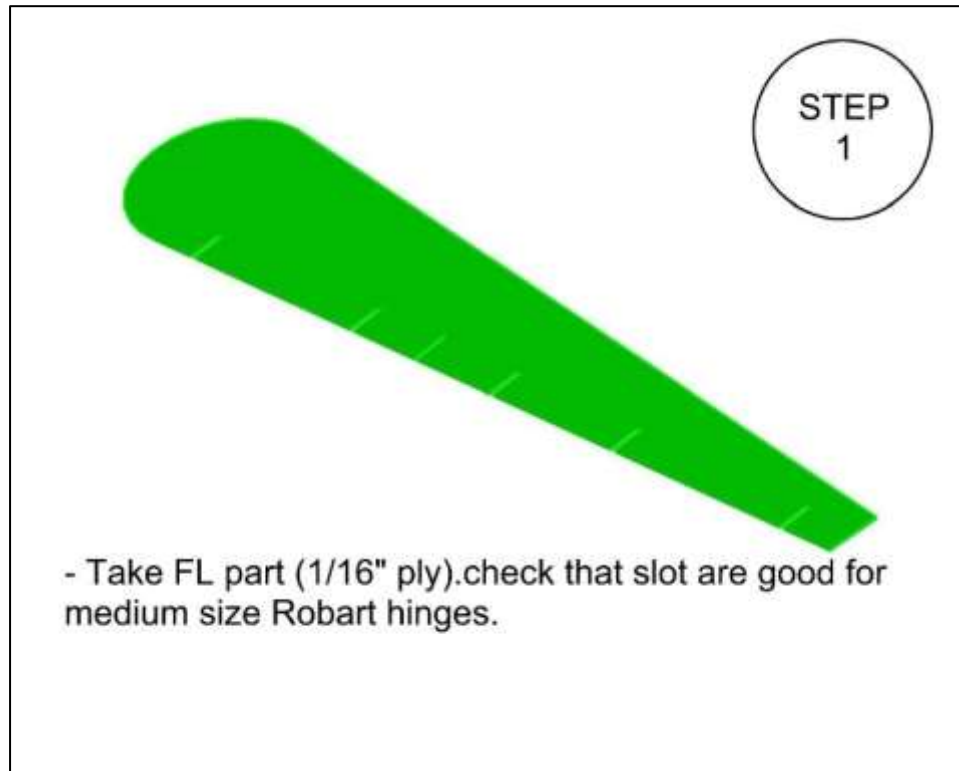
RUDER

The ruder is build using 1/8" balsa ribs and 1/32" ply skin.



FLAPS

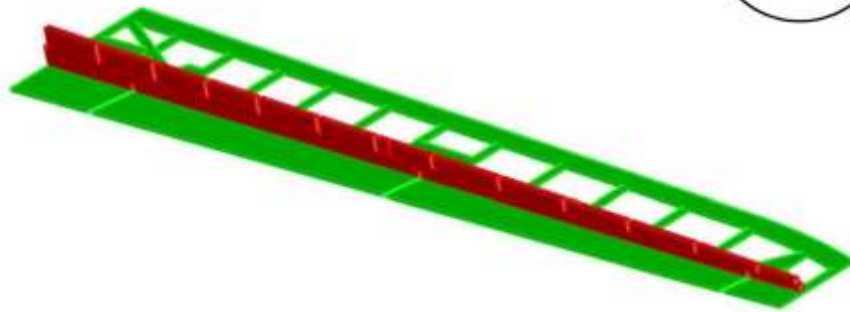
The Ki-43 has a complex butterfly flap system. Even though it is possible to mimic this system, it turns very impractical and requires a precise geometry setting. Instead, our model uses split flaps. We tried different hinge settings but our revised design is using medium size Robart hinges. You can modify this system to your preferences. Also piano hinge can be used.



AILERON

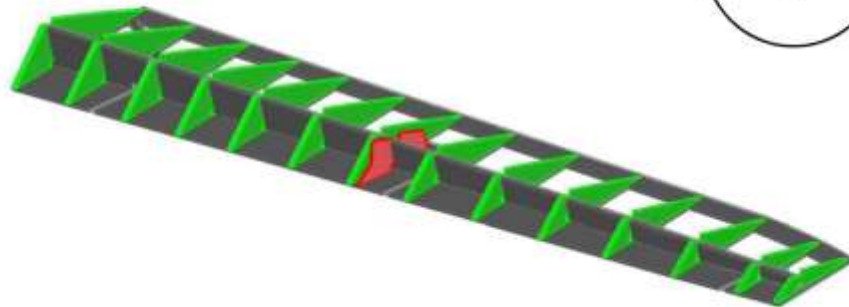
The Ki-43 has ailerons with the rotation point to the bottom of the aileron with an offset from back spar. Ideally custom hinges with removable pin are best scale option, but large Robart hinges can be used, adding an extension that is glued to the wing rear spar.

STEP
1



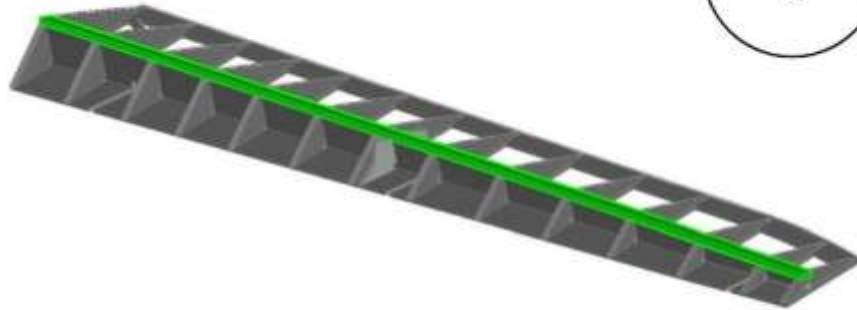
- Check hinge thickness on slots.
- Take the aileron bottom skin A18.
- Glue aileron spar A16 use first and last rib for A16 position. Ribs need to be flush at front of A16.
- Make sure you build one left and one right.

STEP
2



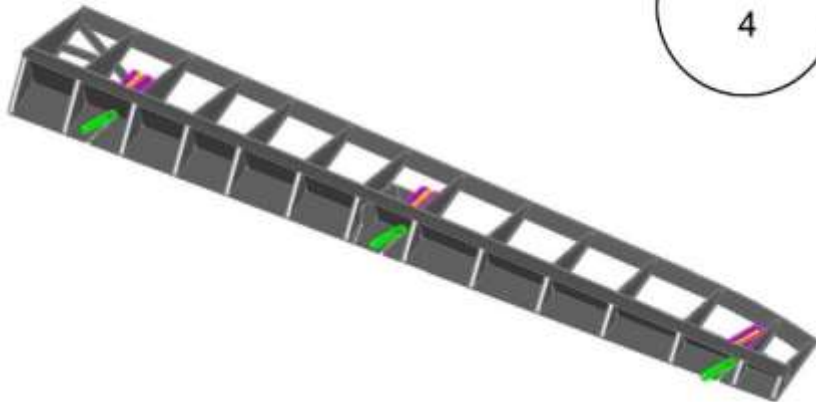
- Slide all aileron ribs A1 to A14 and glue them.
- Slide aileron horn control rib A18 (in red)

STEP
3



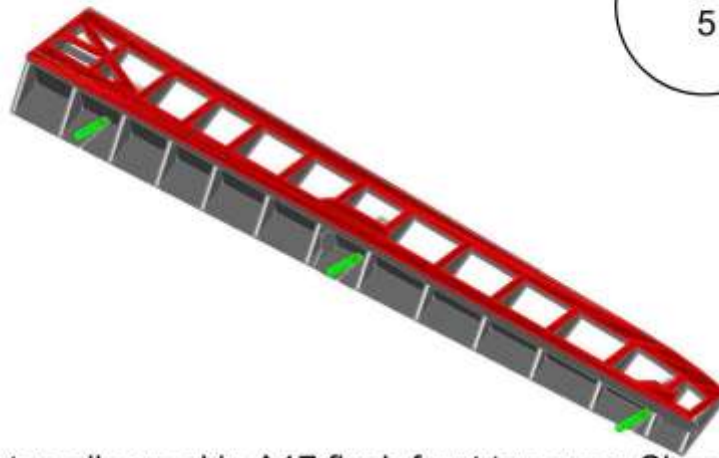
- Glue top 1/8"x1/4" balsa top spar over ribs.
- Sand top spar to front ribs shape.

STEP
4



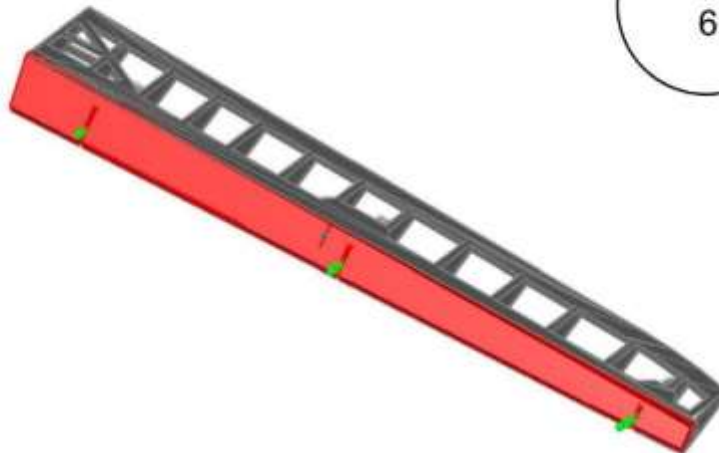
- Prepare hinge blocks. See aileron hinge block detail on plans and at the end of this manual for dimensions.
- Sand hinge blocks to fit at hinge locations, and sand on top of hinge blocks flush to top of ribs.

STEP
5

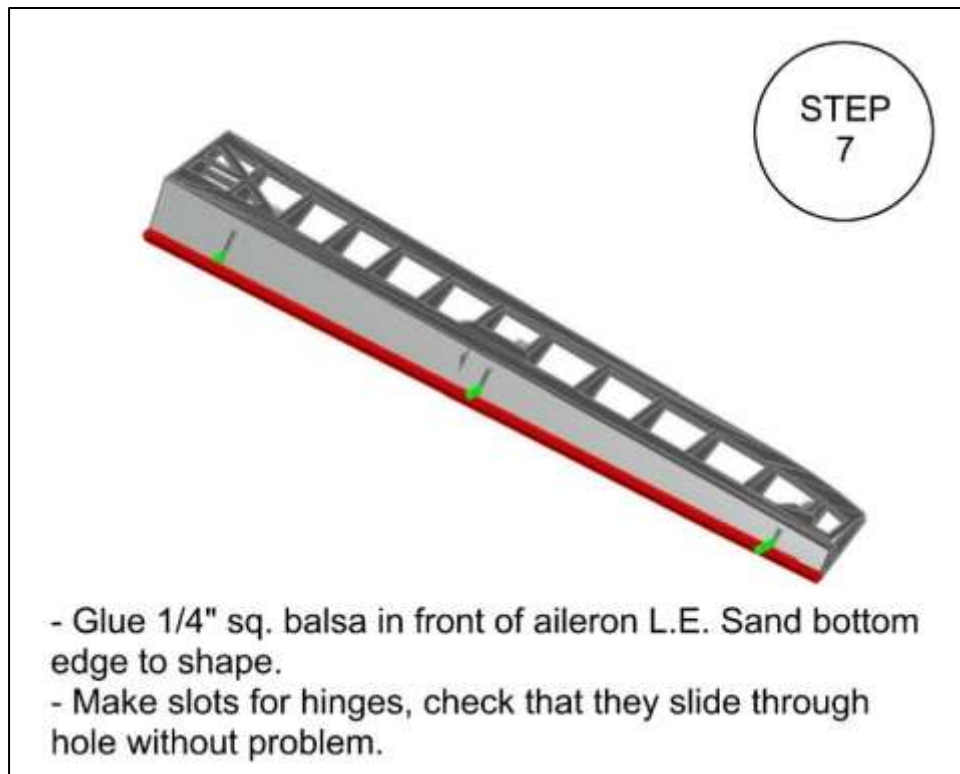


- Glue top aileron skin A17 flush front top spar. Check rear edge and make adjustment if needed.
- If using Robart hinges, do not glue them into the balsa blocks yet.
- Check hinge function through the bottom slots

STEP
6

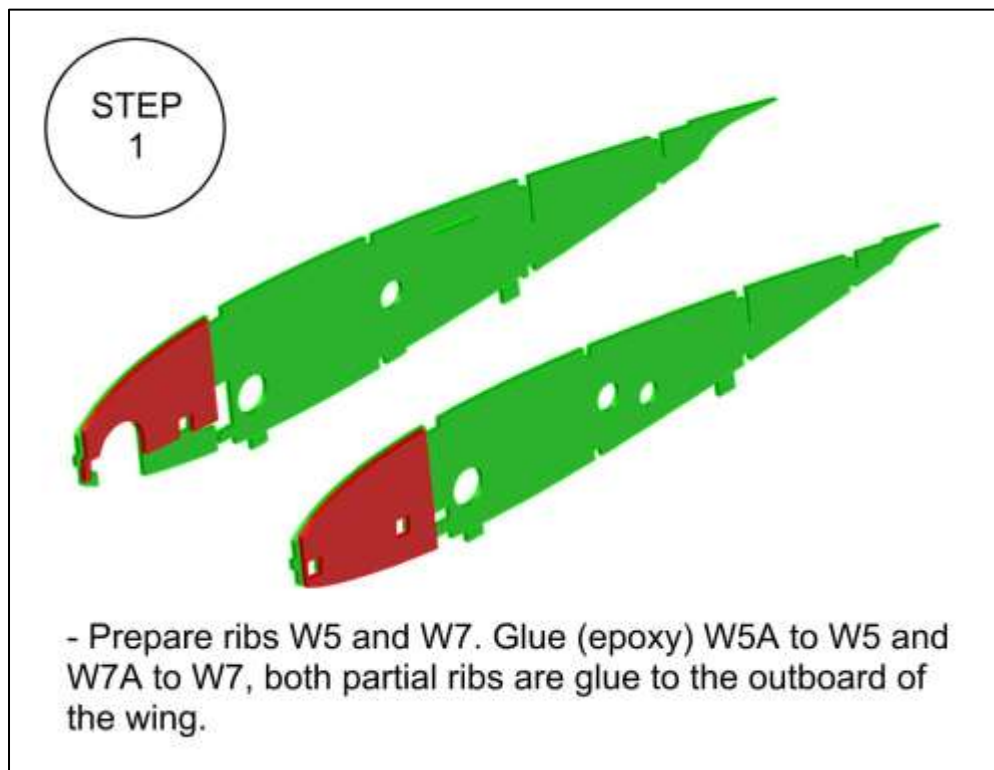


- Glue aileron L.E. in place. Sand top edge flush to shape, sand front edge perpendicular to bottom.
- Make slots for Robart hinges, check that they slide through hole without problem.

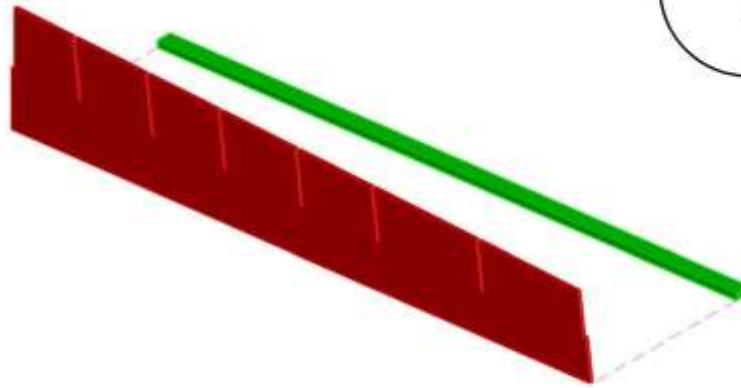


WING CENTER SECTION

The **ZW** Oscar uses a three (3) piece wing. This setup is easy for transportation, storage and to assembly in the field. For easy construction and function the flap has been modified to work as a split offset flap. But if somebody wants a scale function of these butterfly flaps it is easy to do it with some modification and additional parts.

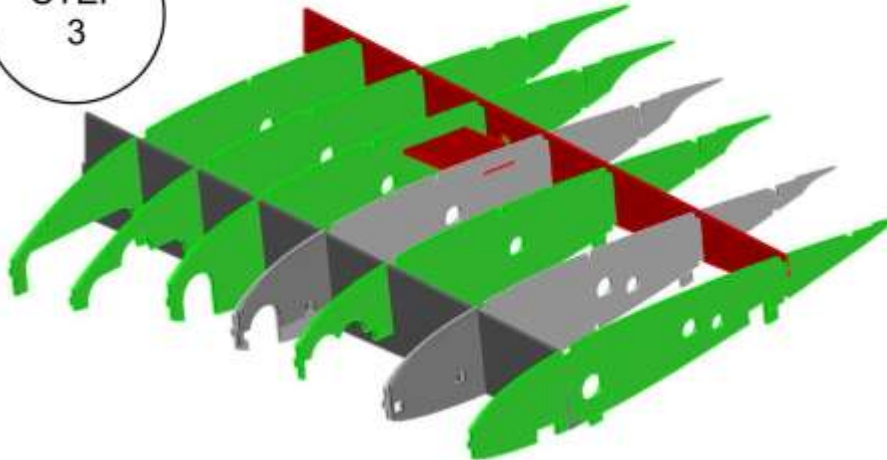


STEP
2



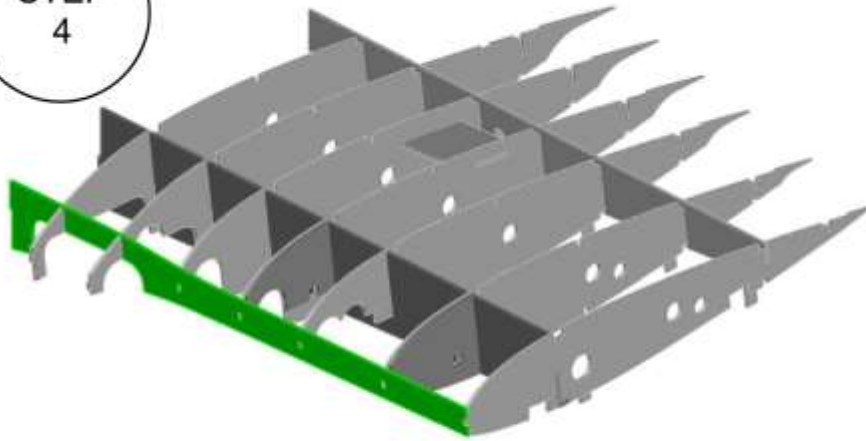
- Glue lower main spar (1/4" x 1/2" hard balsa or hardwood) at the lower edge of W17.

STEP
3



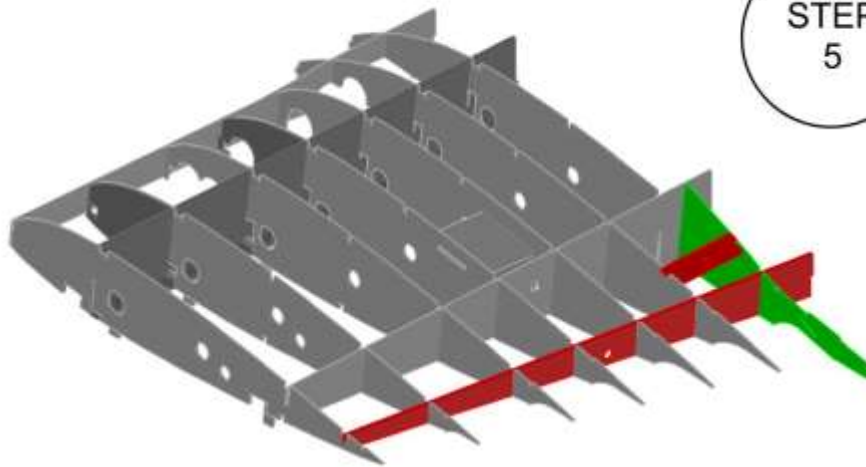
- Slide ribs W2 to W8 on W17, also slide W30 plate between W4 and W5, apply glue on each rib to W17.
- Slide W18 into ribs W2 to W8, glue ribs to W18 and also glue W30 to ribs W4 and W5.

STEP
4



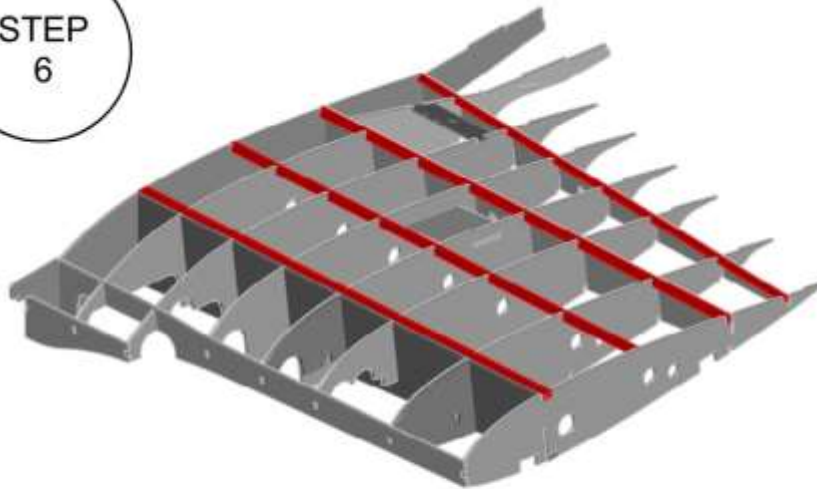
- Slide W20 through W2 and W3 and in front of ribs W4 to W8, this is the L.E. support.

STEP
5



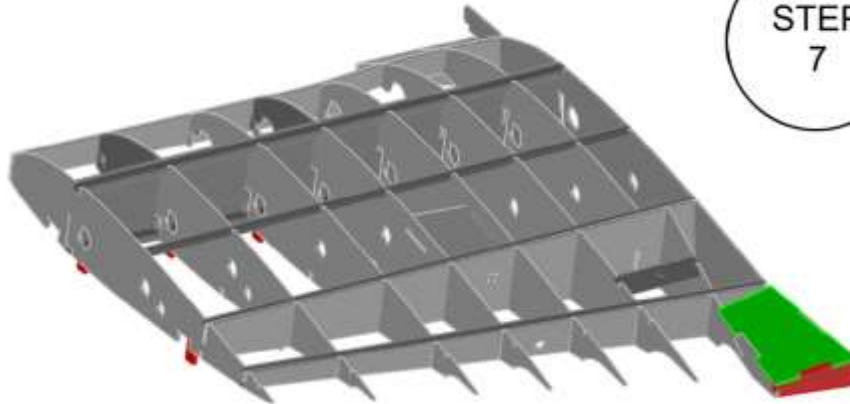
- Slide W2A into W18 notch.
- Slide W19 into ribs W2A to W8.
- Glue (epoxy) W33 (wing bolt top plate) between W2A and W3.

STEP
6

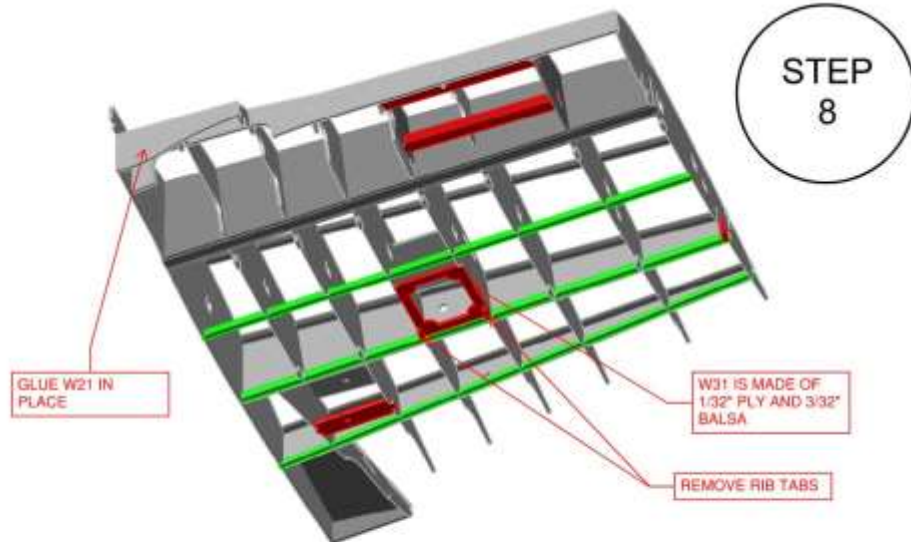


- Glue (epoxy) W1 into spars W17, W18, W19 and W20.
- Install and glue top spars: front (1/2"x1/4") out of hard balsa or hardwood and the others (1/4" sq. and 1/4"x1/8") out of balsa.

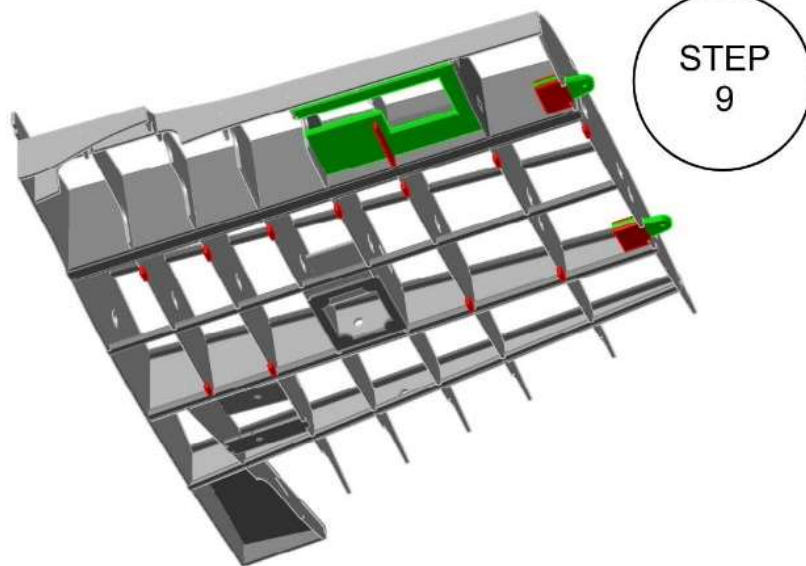
STEP
7



- You can split W35 in half for each center panel or Glue W35 when you join both panels on top of W1s and W2s
- Glue W22 between W1 and W2 and under W35

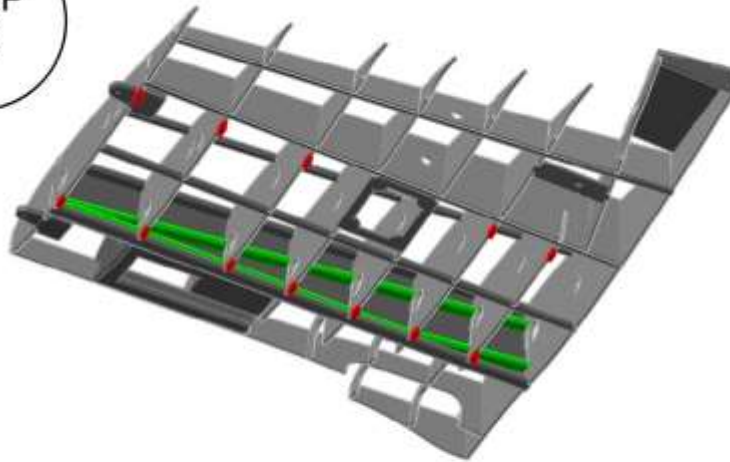


- Glue (epoxy) landing gear rails between W5 and W7.
- Glue 1/4" sq. balsa bottom spars in place.
- Glue W32 plate between W2A and W3, also the servo opening support W31 between W4 and W5



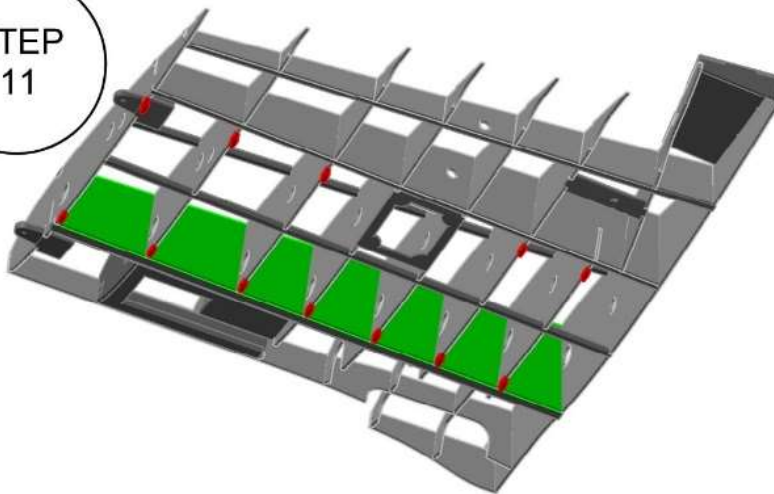
- Glue (epoxy) landing gear plate in place.
- Prepare and glue wing male connector at W8.
- Glue partial W6 over the LG plate.

STEP
10



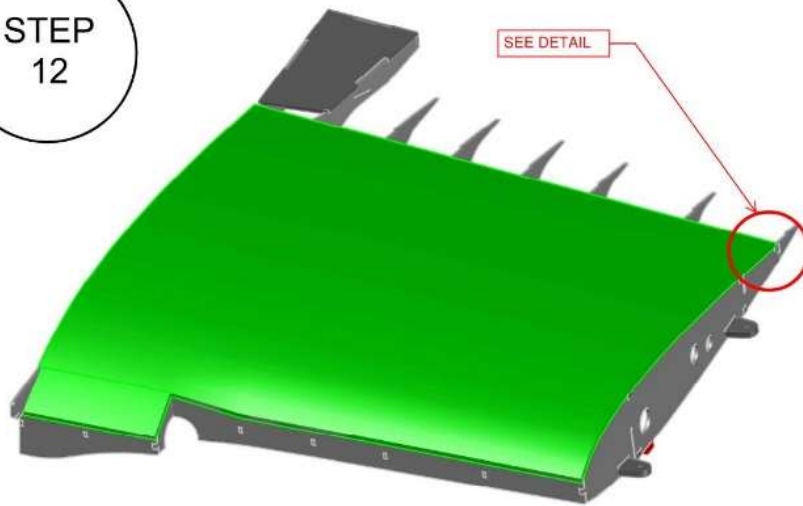
- Create main spar pocket by gluing 1/2"x1/4" balsa sticks between ribs, by sliding the main spar protected to avoid get glue to W17. Check plans for detail.

STEP
11



- Install shear web out of 1/8" balsa (vertical grain) between ribs and closing the main spar pocket.
- Prepare ribs surface for top skin.

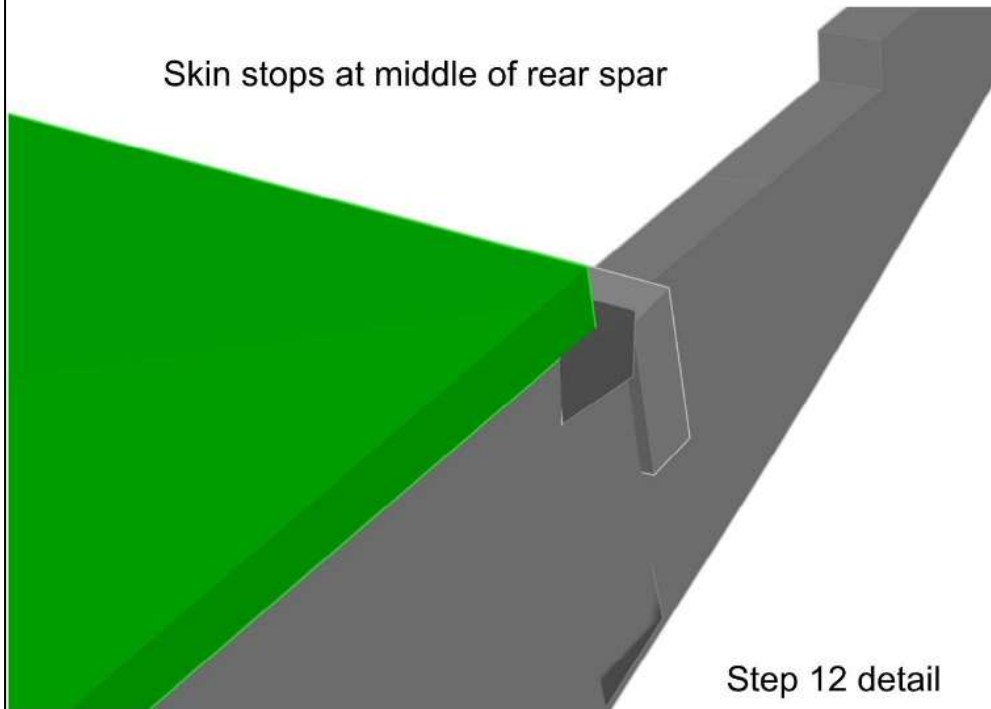
STEP
12



SEE DETAIL

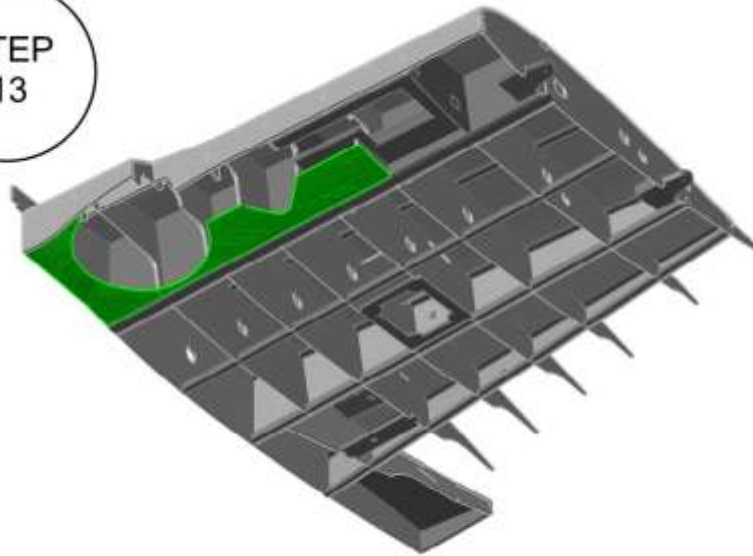
- Prepare and install top wing skin out of 1/8" balsa sheets. Skin stops at middle of rear spar, see next detail

Skin stops at middle of rear spar



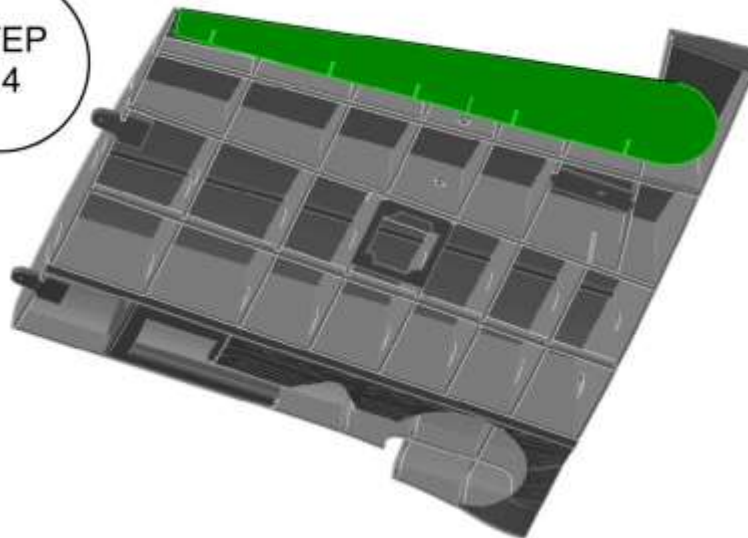
Step 12 detail

STEP
13



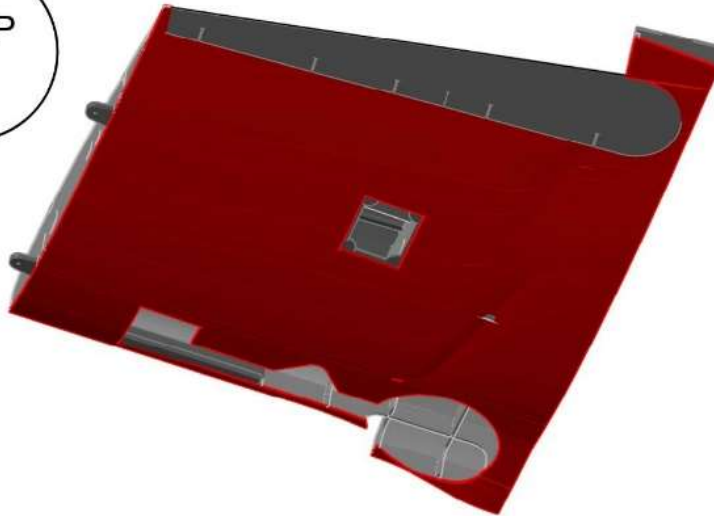
- Install wheel well reinforce W34 out of 1/32" plywood between ribs W1 and W6.

STEP
14



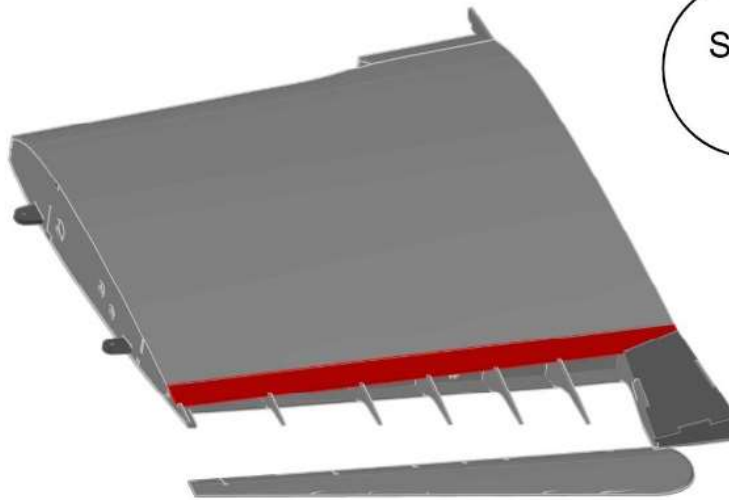
- Prepare flap hinges blocks glued to W19.
- Use the flap to align hinge blocks but do not glue hinges yet, check plans for detail or at the end of this manual.
- Remove all rib tabs, prepare ribs surface for bottom skin.

STEP
15



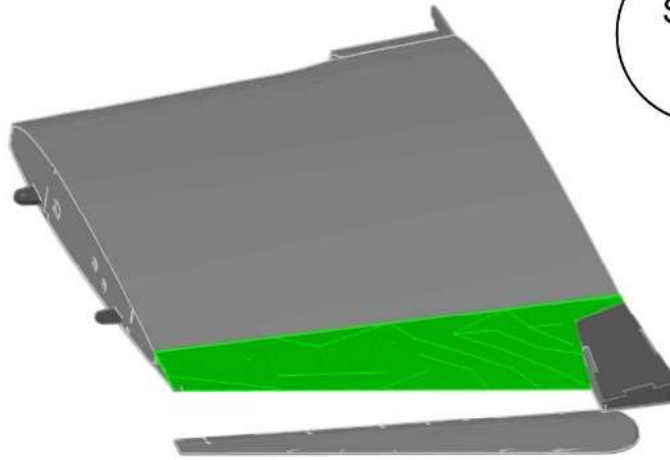
- Prepare and install bottom wing skin out of 1/8" balsa sheets. Check opening for flap, flap servo, and landing gear unit, strut and wheel.

STEP
16



- Check correct flap function, and install flap horn.
- Install top flap skin leveler out of 3/32" balsa sheet

STEP
17



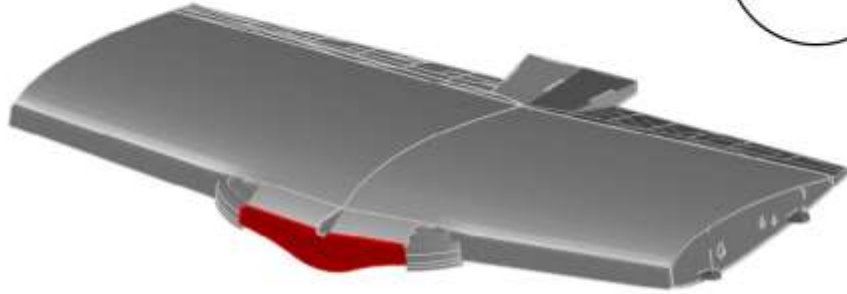
- Install top flap skin out of 1/32" plywood, it should be flush with the flap T.E.

STEP
18



- Prepare and install wing L.E. out of 3/8" balsa.
- Install wheel well corner blocks W36 to be shape after installing front L.E.

STEP
19

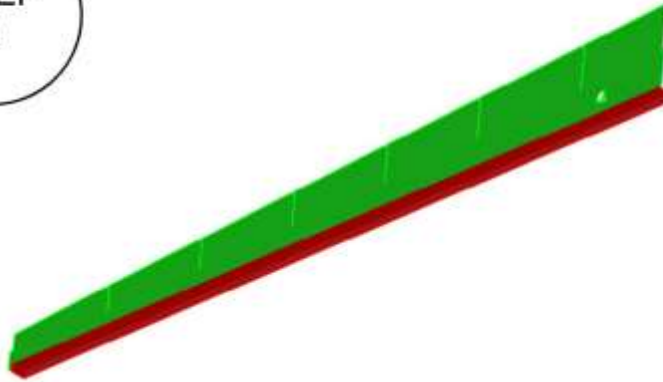


- Once you have both center sections, install (epoxy) main spar out of 1/2" hardwood following plans dimensions, and epoxy both panels.
- Glue front L.E. W38 sand top round shape. Finish shaping with the wing attached to the fuselage.

WING OUTSIDE PANES

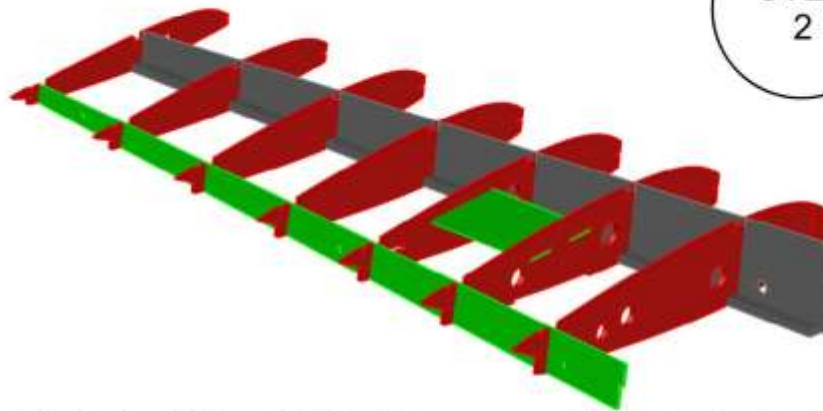
Wing panels are attached to the center section using 2 wing tubes on each side.

STEP
1



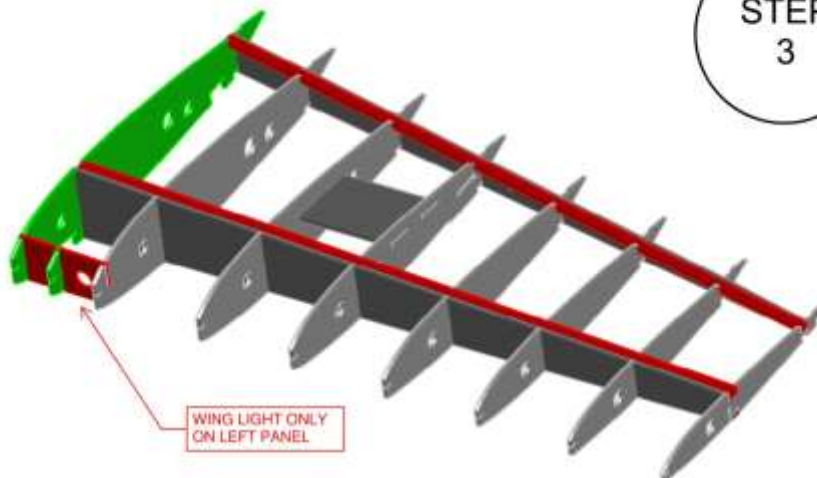
- Glue lower main spar (1/4" x 1/2" hard balsa or hardwood) at the lower edge of W23.

STEP
2



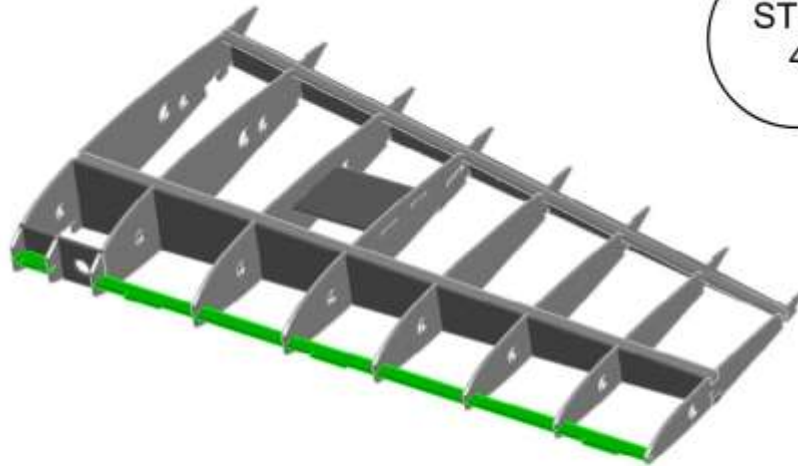
- Slide ribs W10 to W16 into spar-web W23. Check that they are perpendicular and glue in place. Slide and glue aileron servo plate W28 between ribs W11 and W12.
- Slide and glue rear spar-web W24 to ribs.

STEP
3



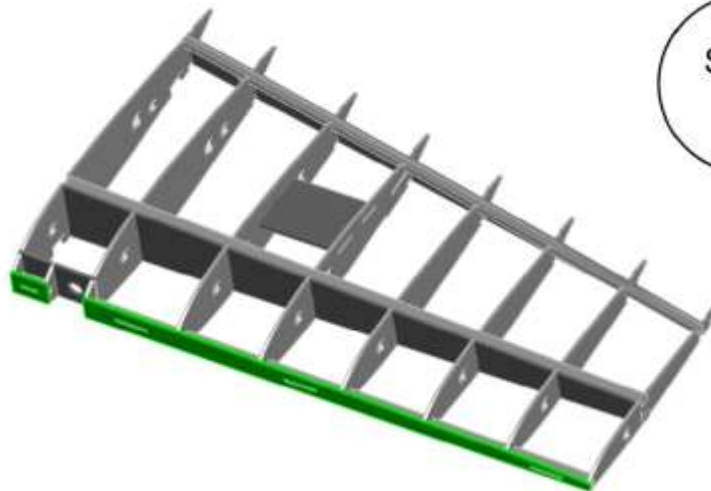
- Glue rib W9 at the end of spar-webs.
- Slide and glue wing light base W27 between ribs W9 and W10, glue semi-rib W9A into W27.
- Install top spars 1/2"x1/4" and 3/8"x3/16".

STEP
4

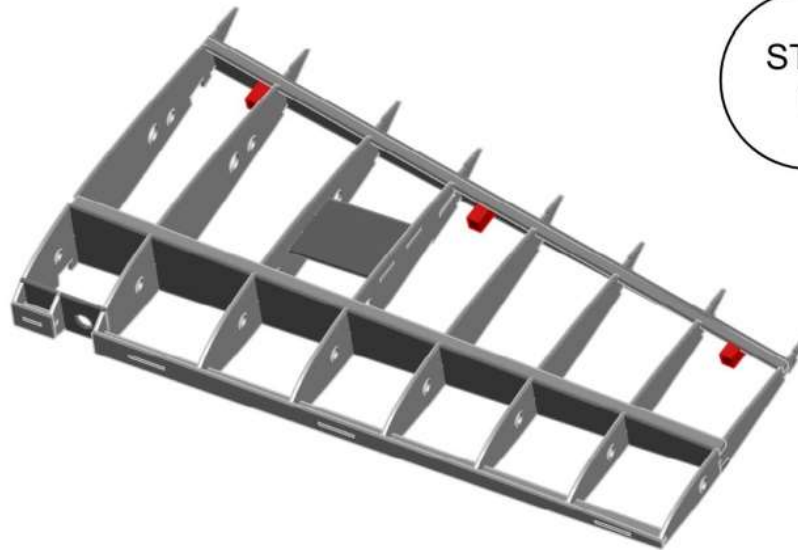


- Slide and glue front L.E. support guide W25.
- Open cut wing light area (only on left panel).

STEP
5

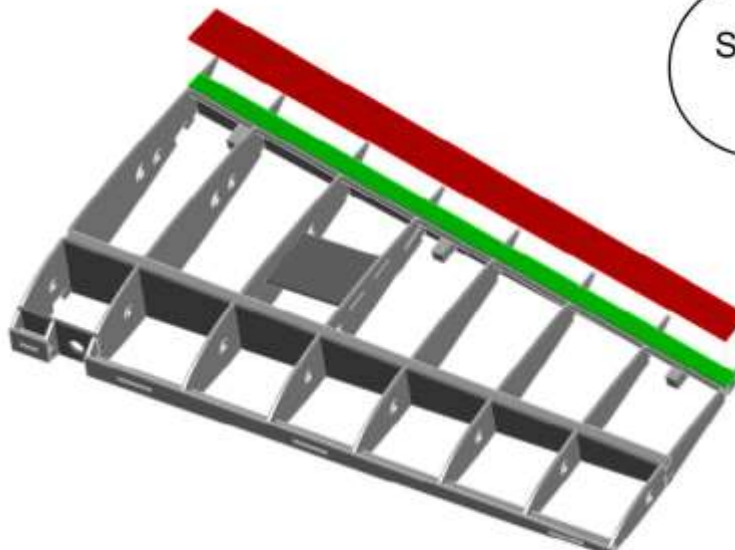


- Install and glue L.E. support part W26 using slots.
- Open cut wing light area (only on left panel).



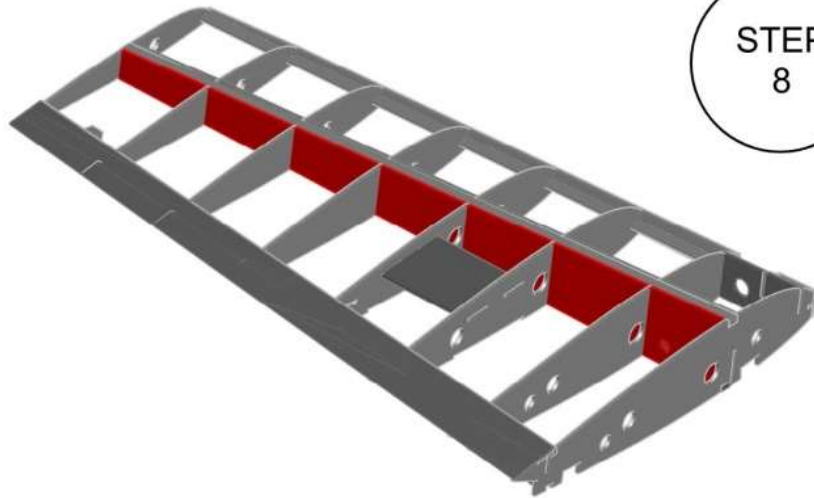
STEP
6

- Install and glue hinge blocks. Use round holes on rear spar as guide for locations.

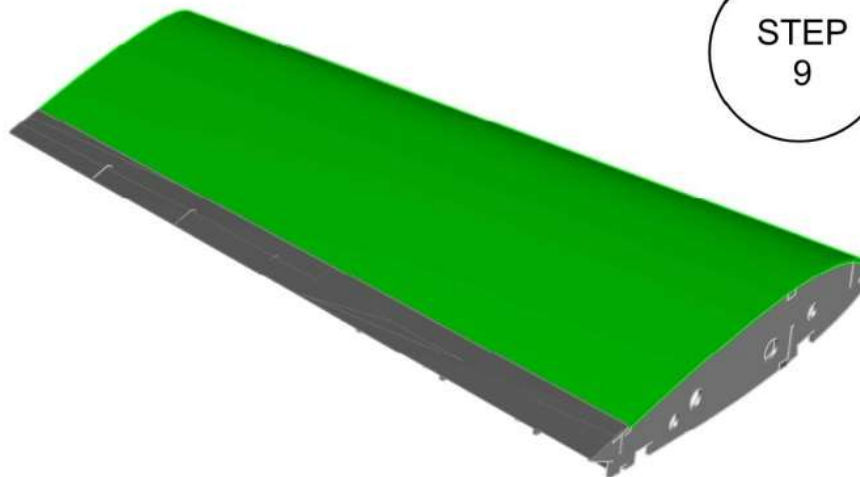


STEP
7

- Glue aileron shroud support out of 3/32" balsa. The part must be glue from the center of the rear 1/4" sq. spar.
- Glue aileron shroud AT out of 1/32" plywood on top of 3/32" balsa support plate from previous step

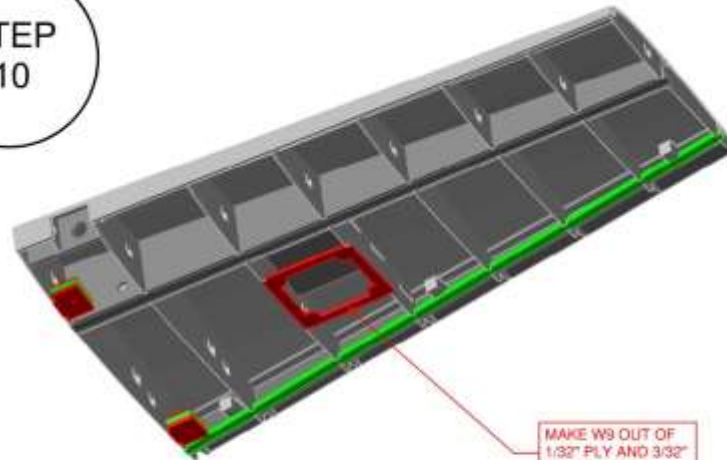


- Prepare and glue main spar shear web out of 1/8" balsa sheet (perpendicular grain), behind main spars. Be sure to open a hole to feed wing light system



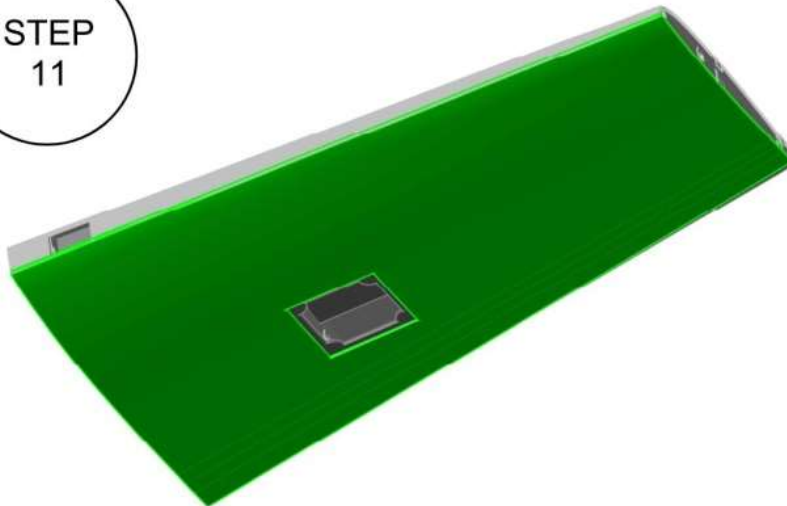
- Check and sand top area of ribs to receive top skin.
- Prepare and glue top outer panel skin out of 1/8" balsa sheet.

STEP
10



- Install and glue 3/8"x3/16" balsa rear spar.
- Prepare and glue W29 for aileron servo hatch support.
- Prepare and glue female wing lock system to rib W9.

STEP
11



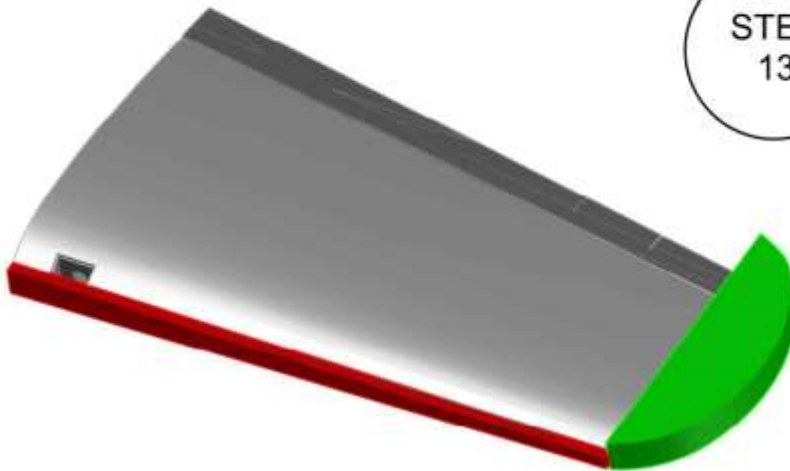
- Prepare and glue bottom panel skin out of 1/8" balsa sheet.
- Cut opening for aileron servo hatch.

STEP
12



- Cut open top and bottom skin for wing light area (only left panel).

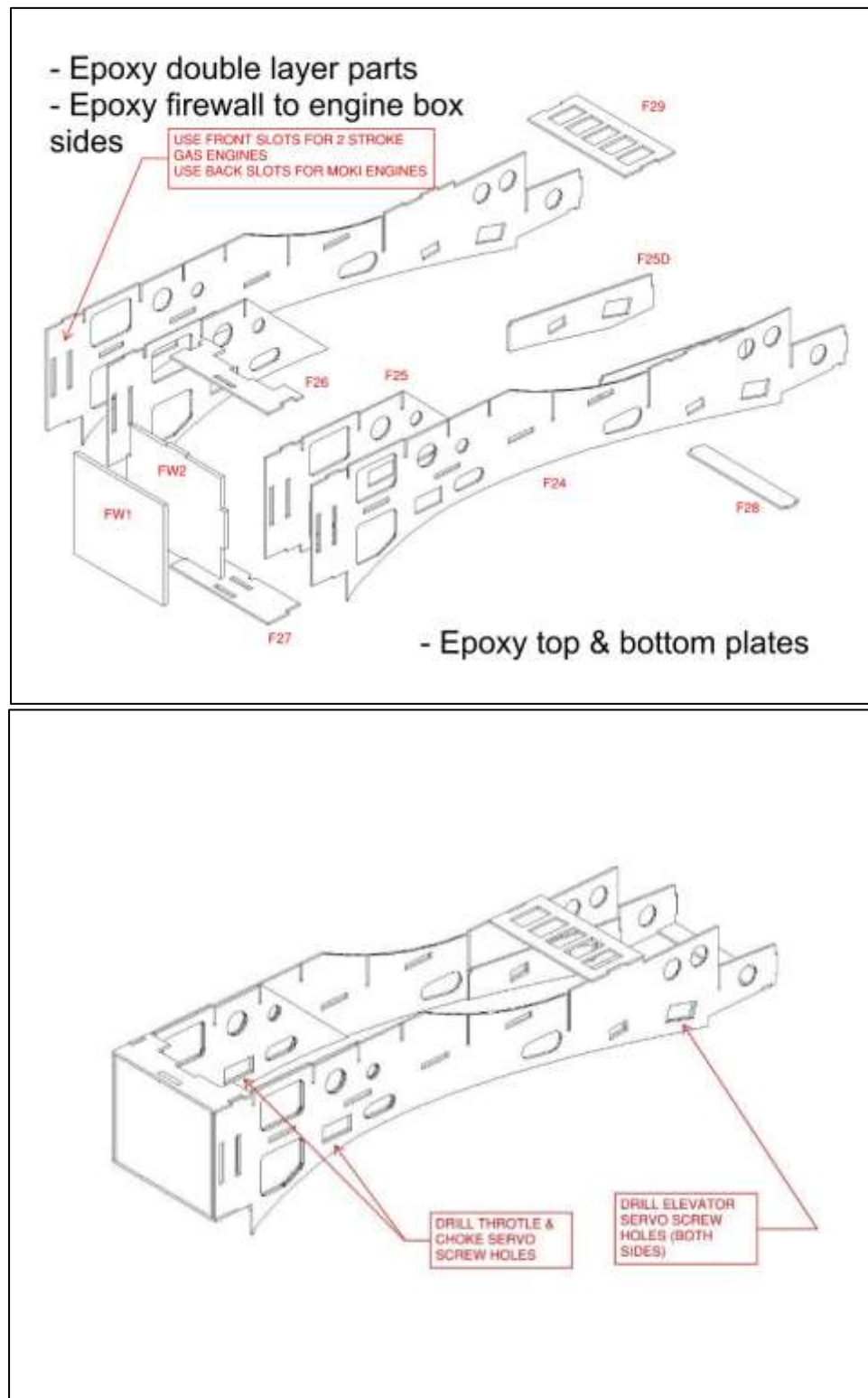
STEP
13

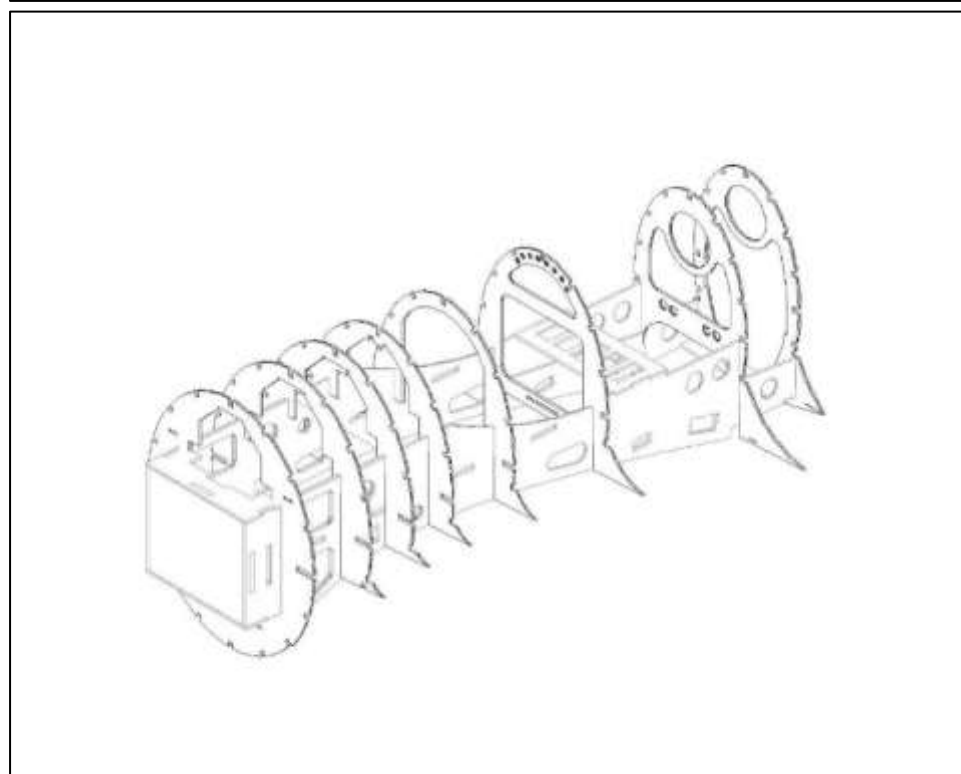
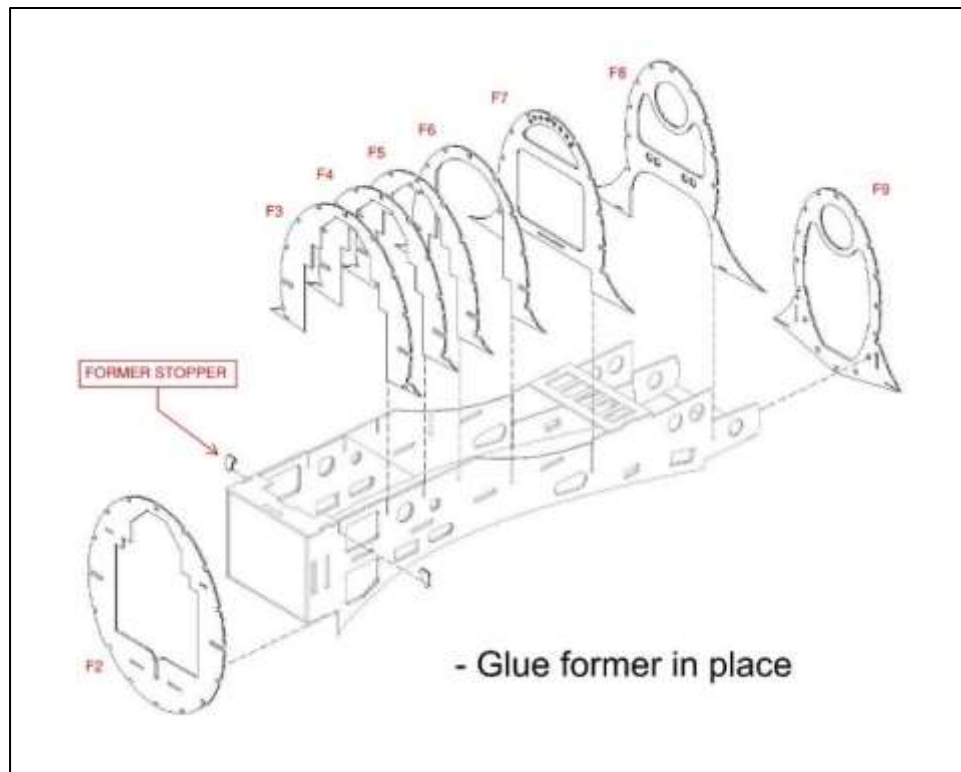


- Install and glue 3/8" balsa L.E.
- Prepare and glue wing tips. Check plans for location.
- Sand L.E. and tip to shape and then cut wing light opening (only left panel)
- Install Aileron before color paint.

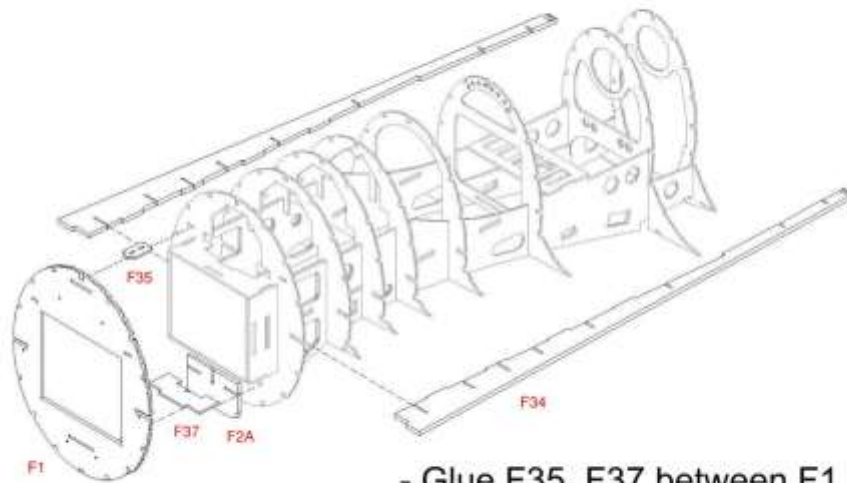
FUSELAGE

The instructions to build the fuselage show two different ways one will be building the fuselage around the engine box. The other ways is building two halves top and bottom and then assemble both together with the engine box.

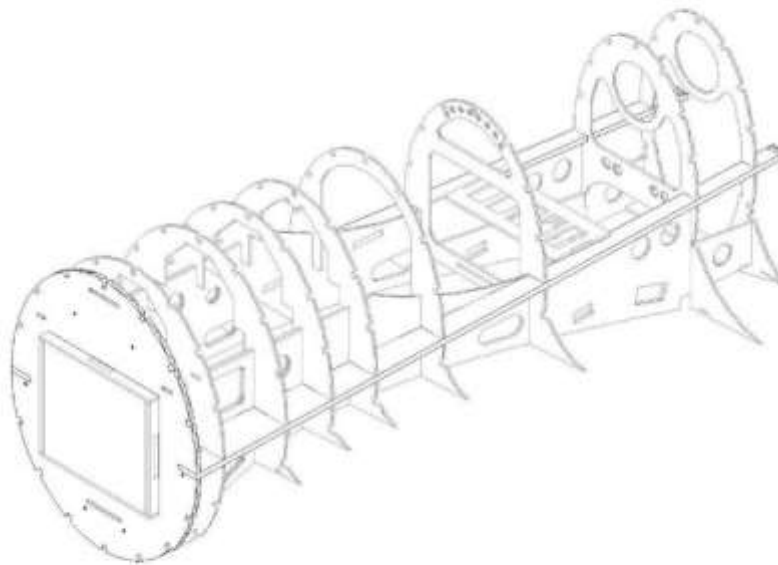


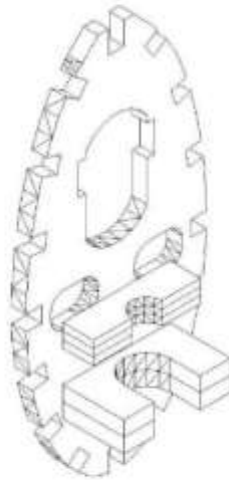
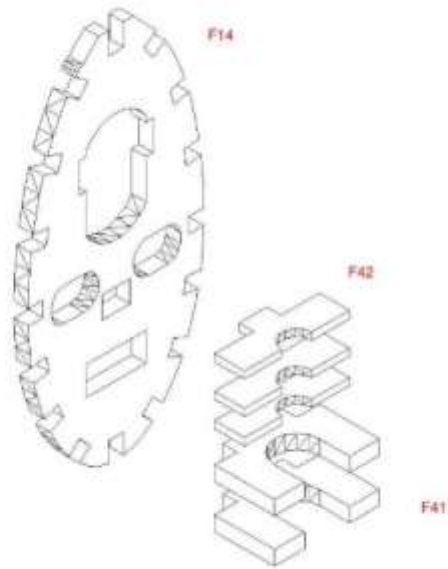


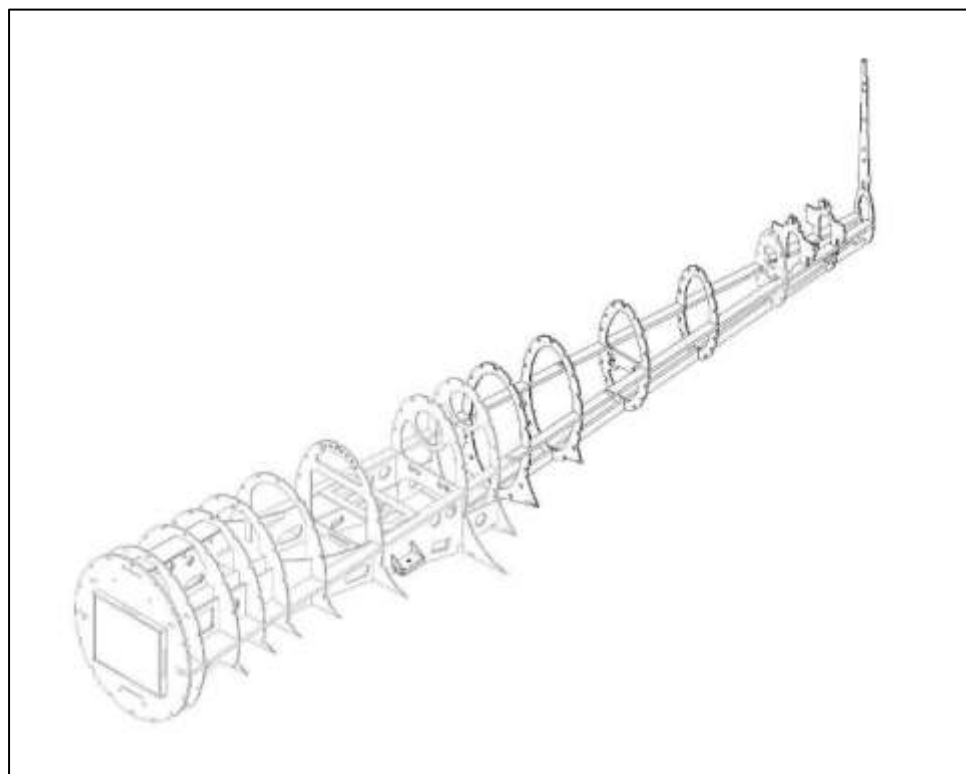
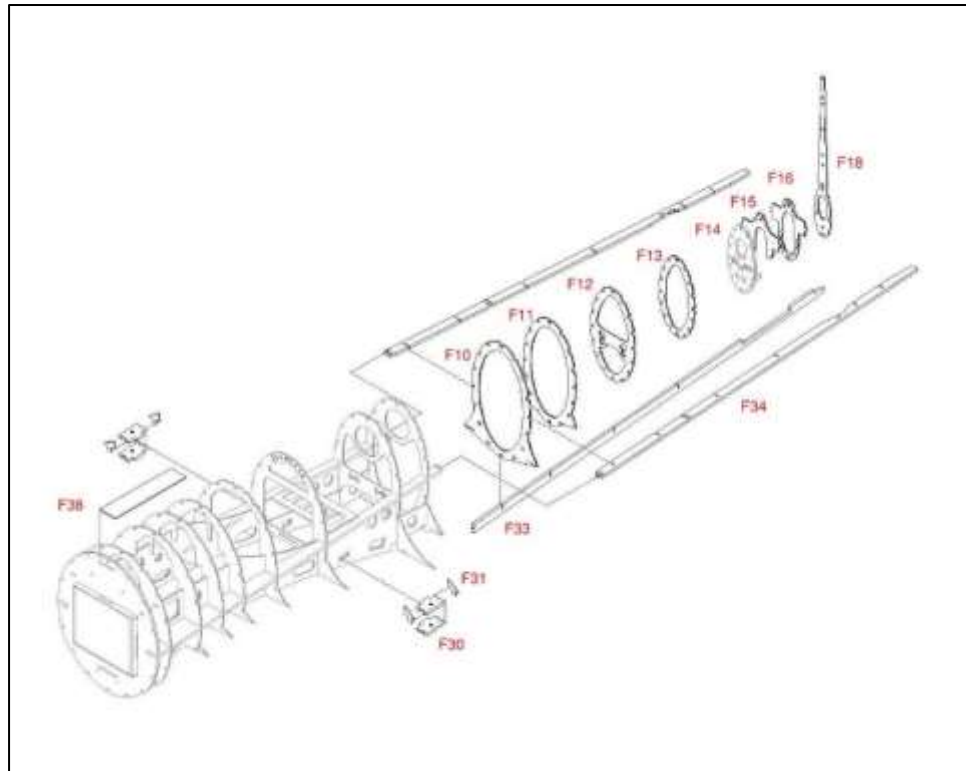
- Glue lateral stringers first
- Epoxy F2A to F2

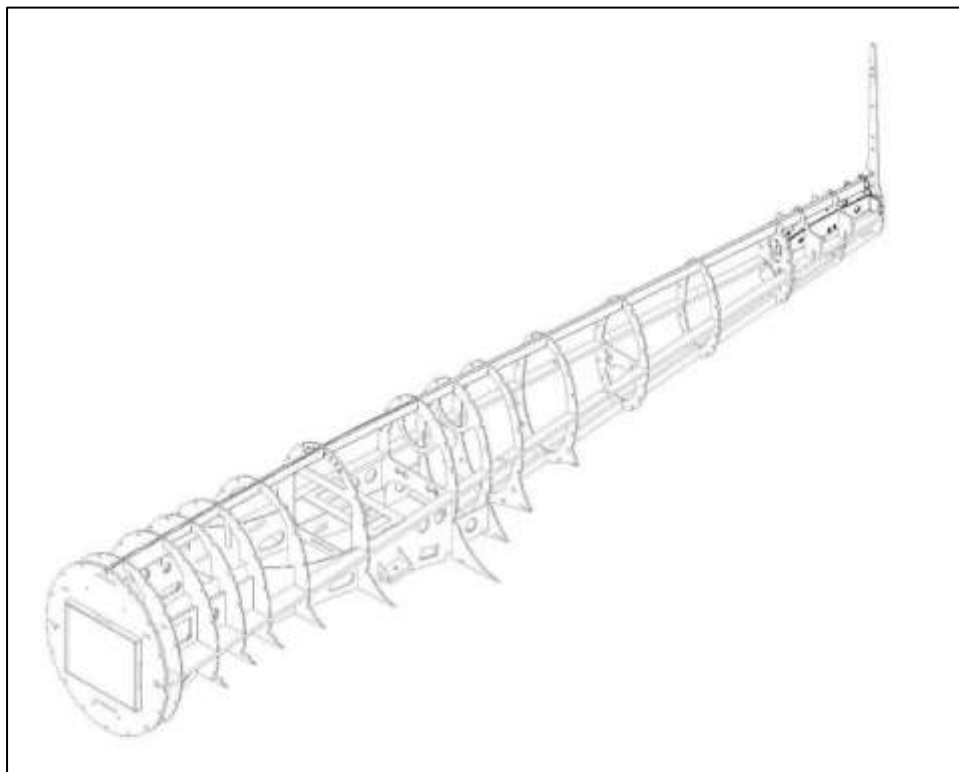
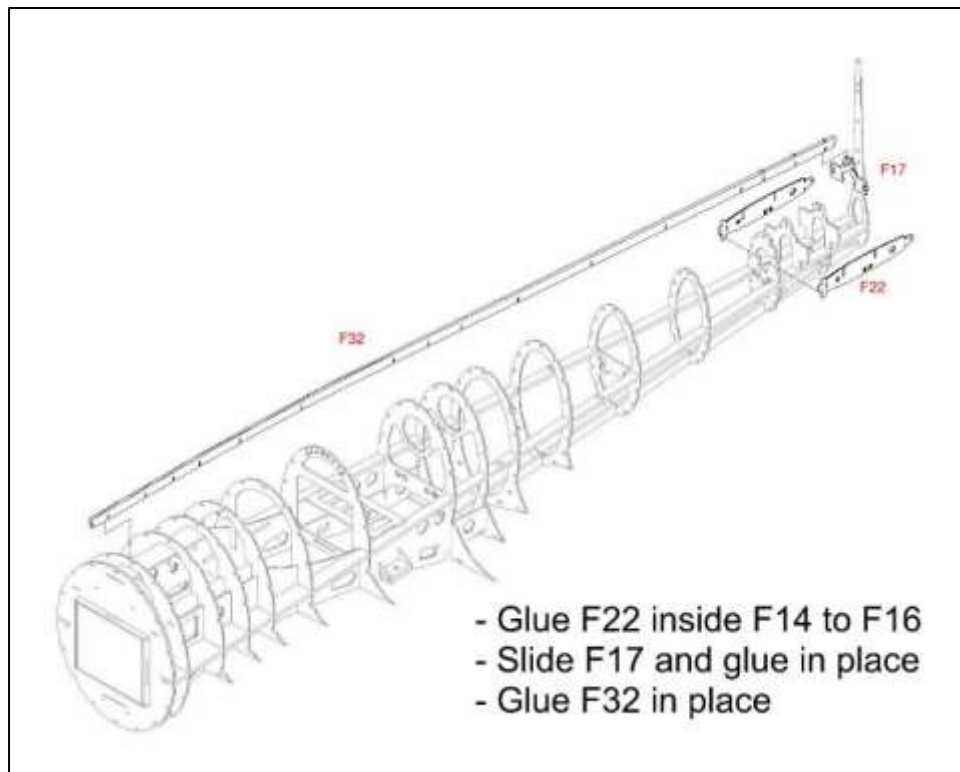


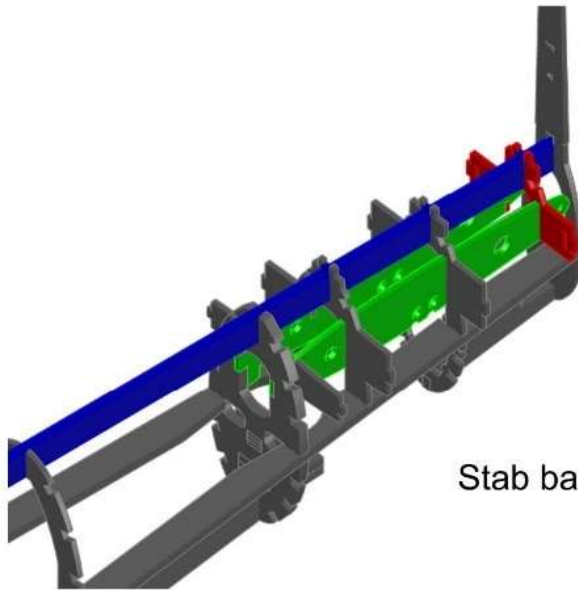
- Glue F35, F37 between F1 and F2, epoxy F2 to engine box



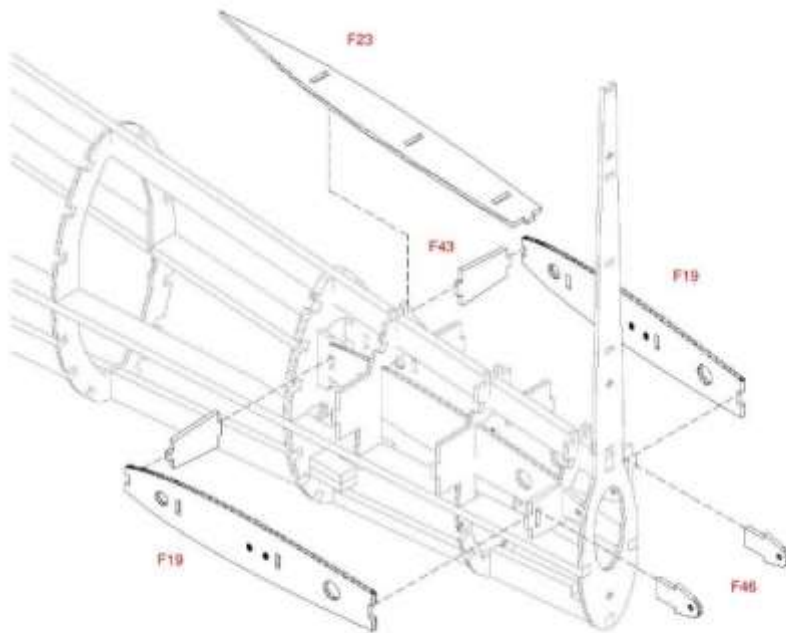


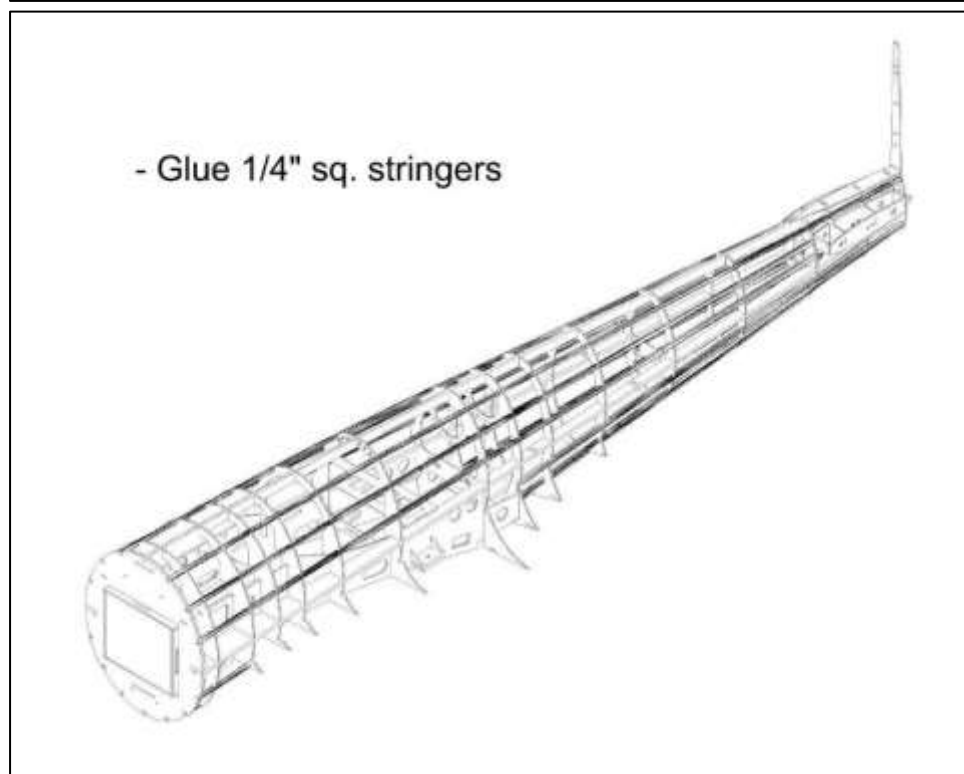
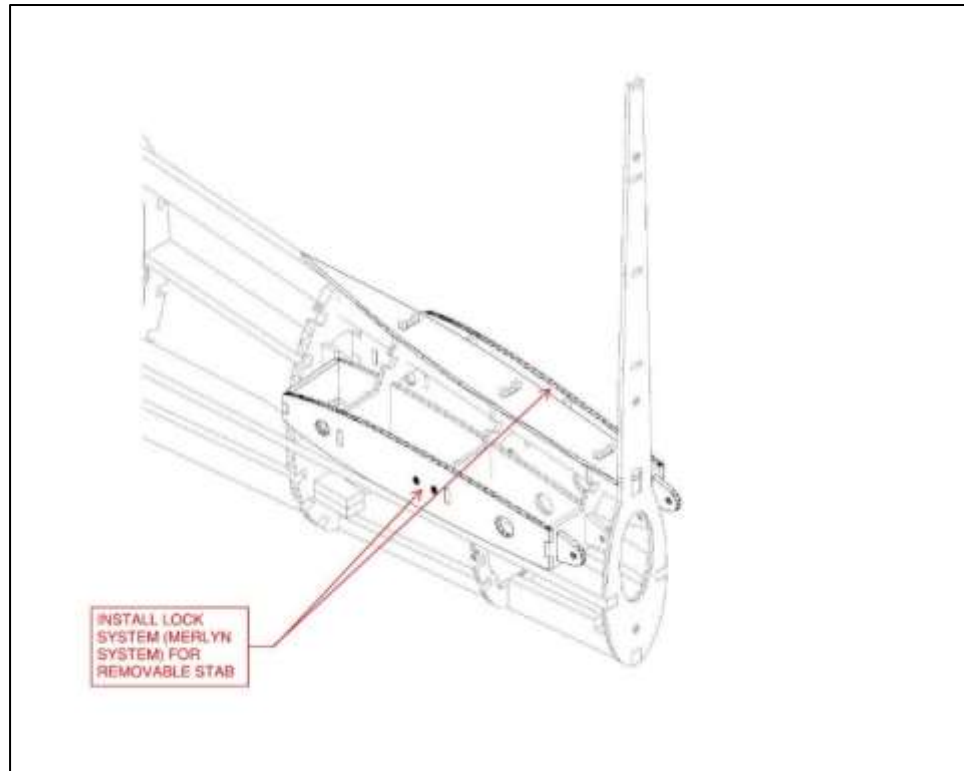


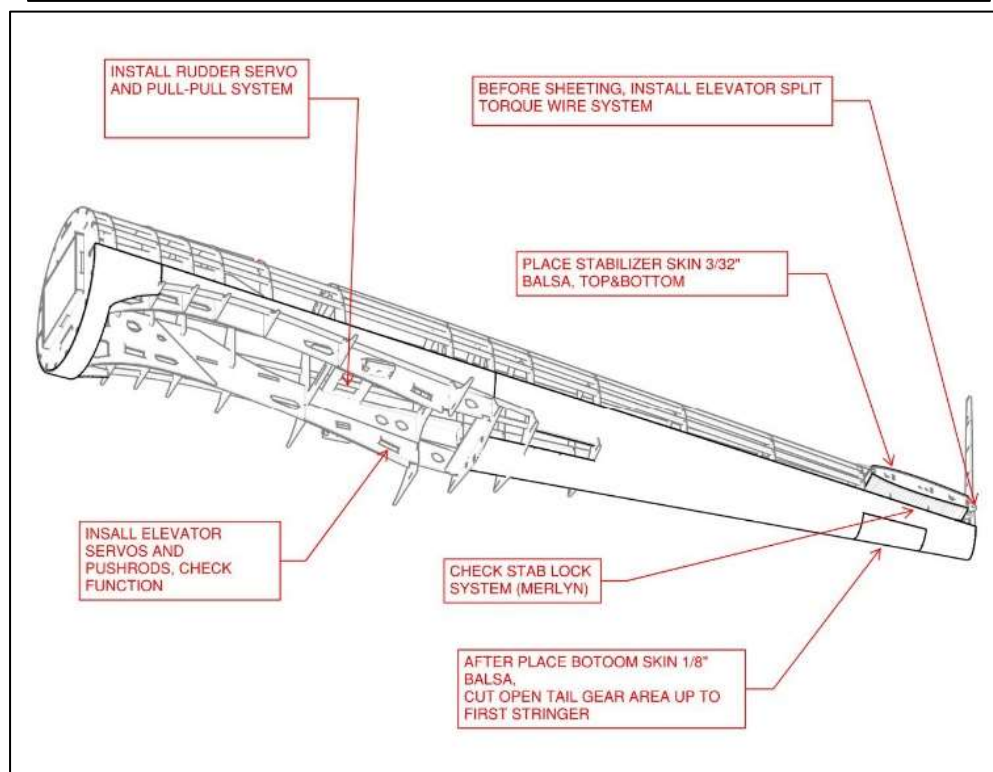
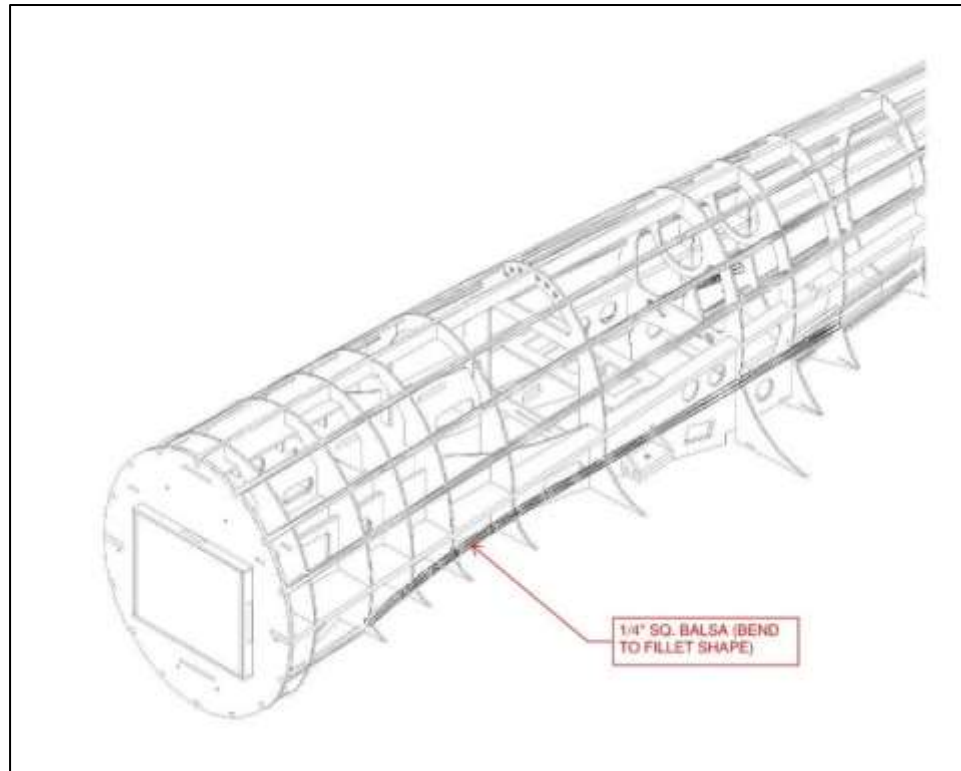


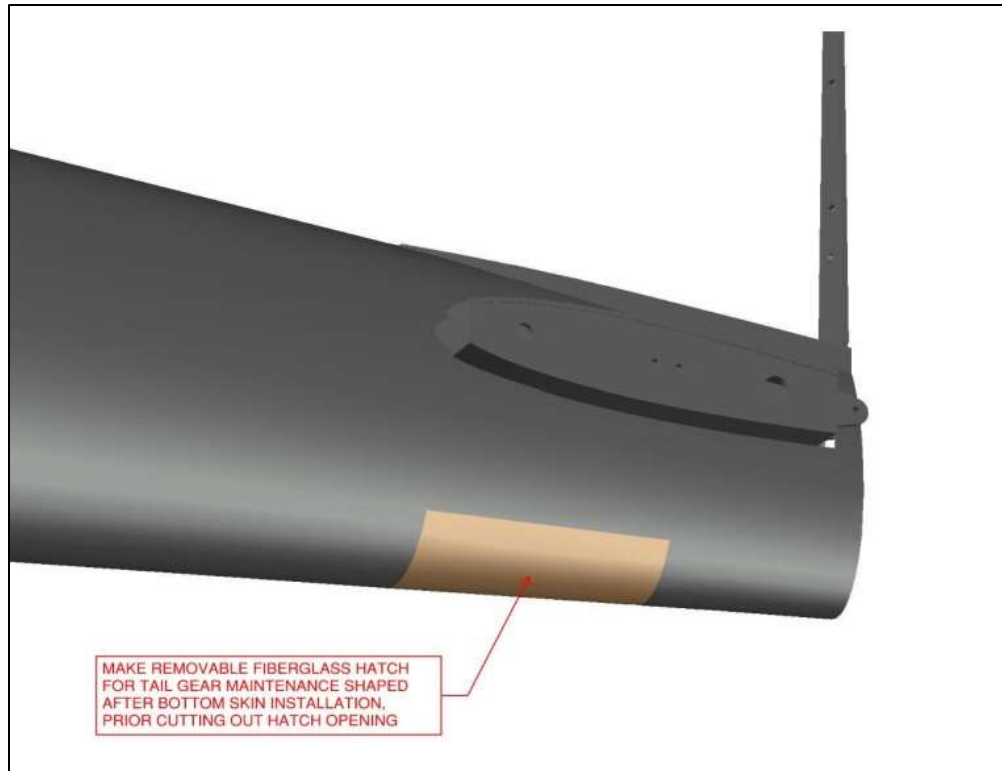


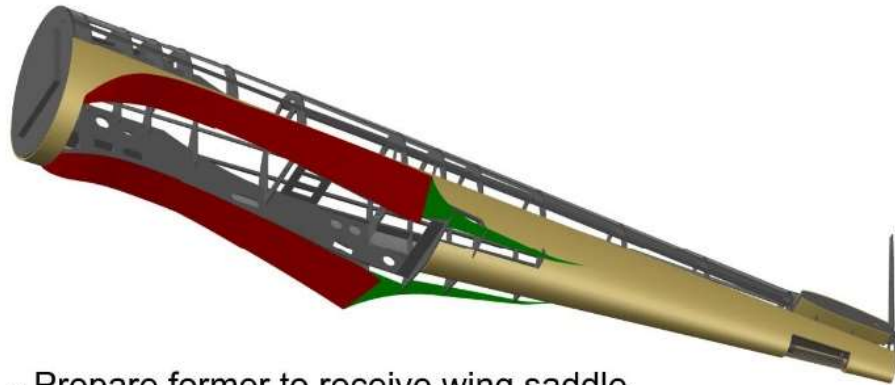
Stab base detail



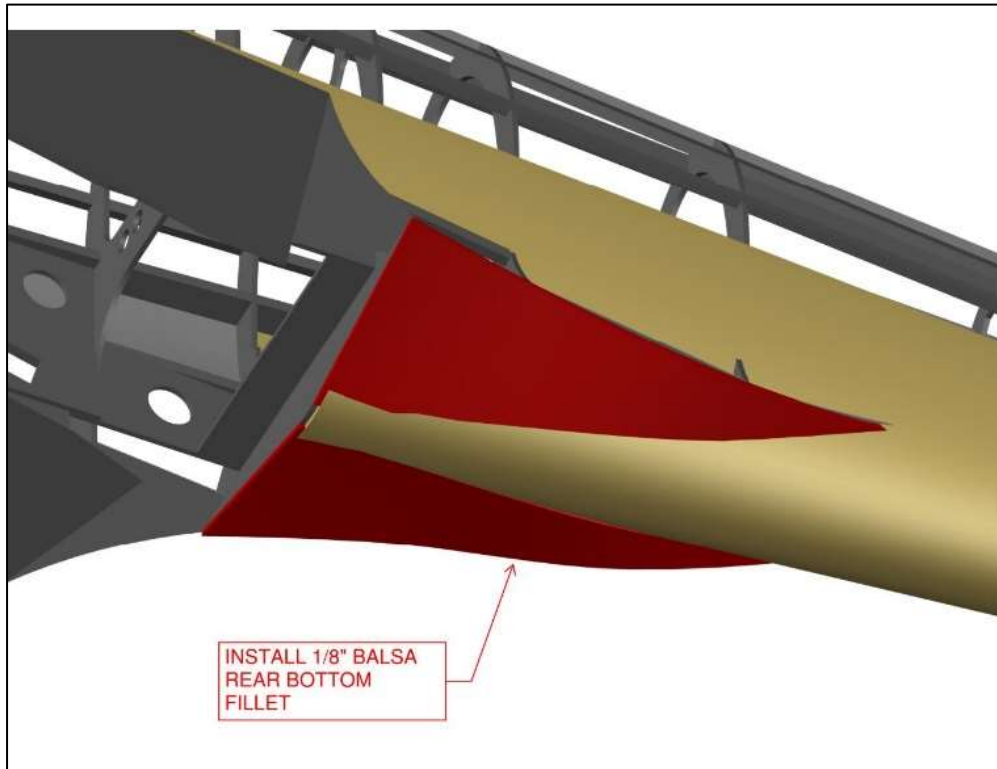


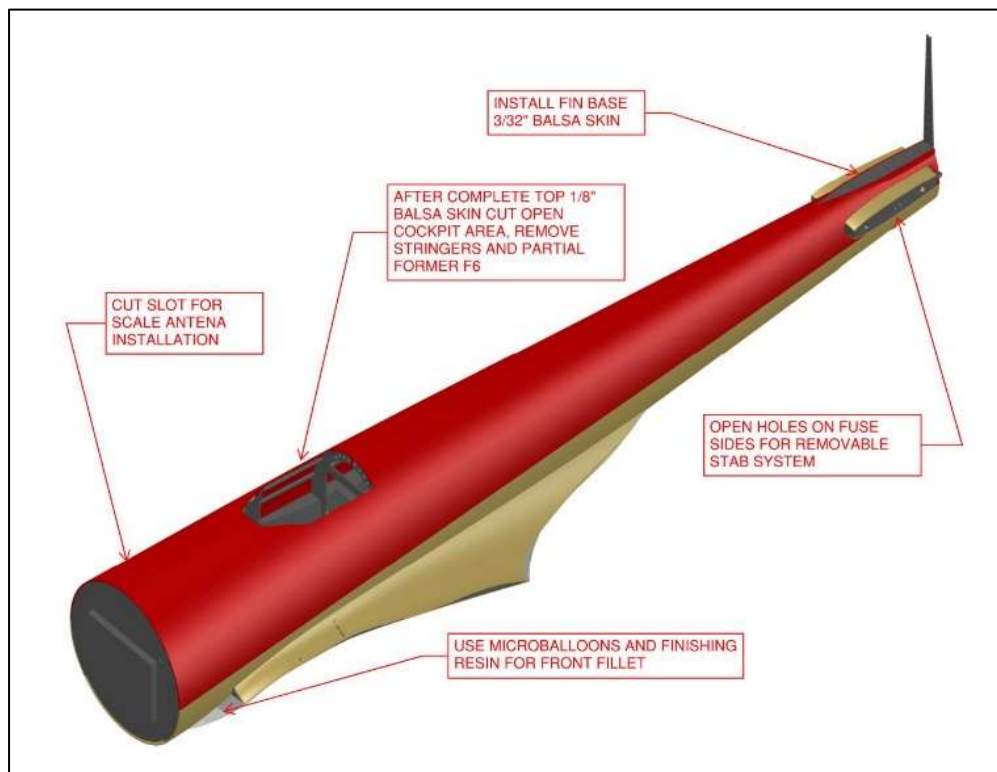
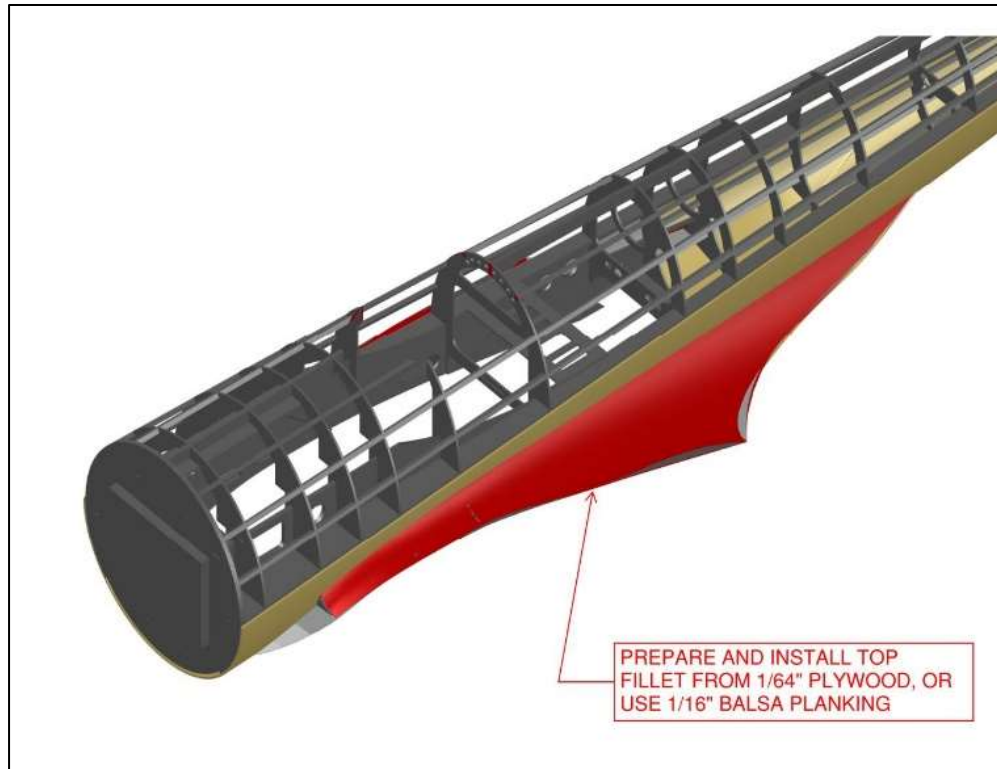


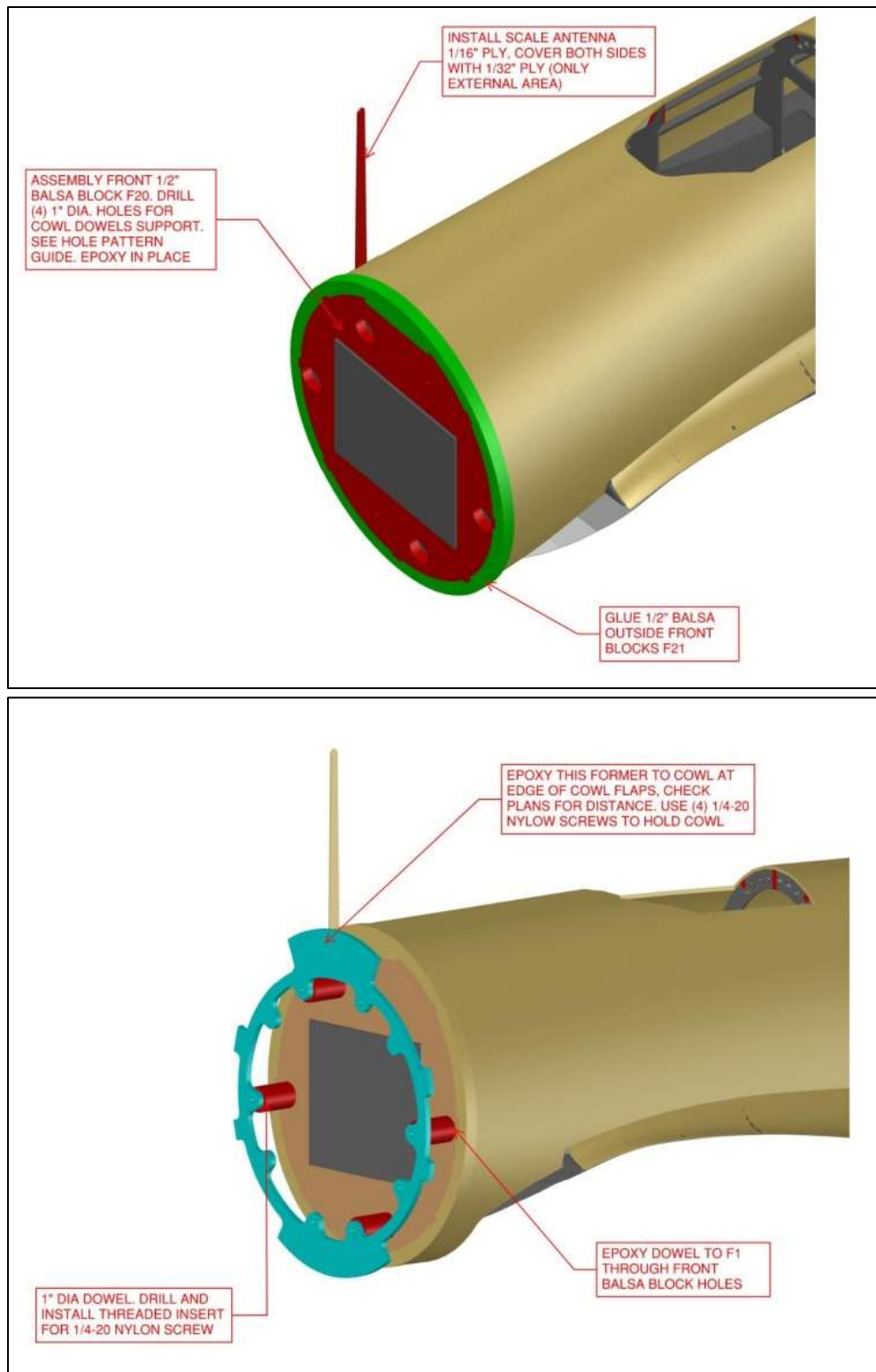




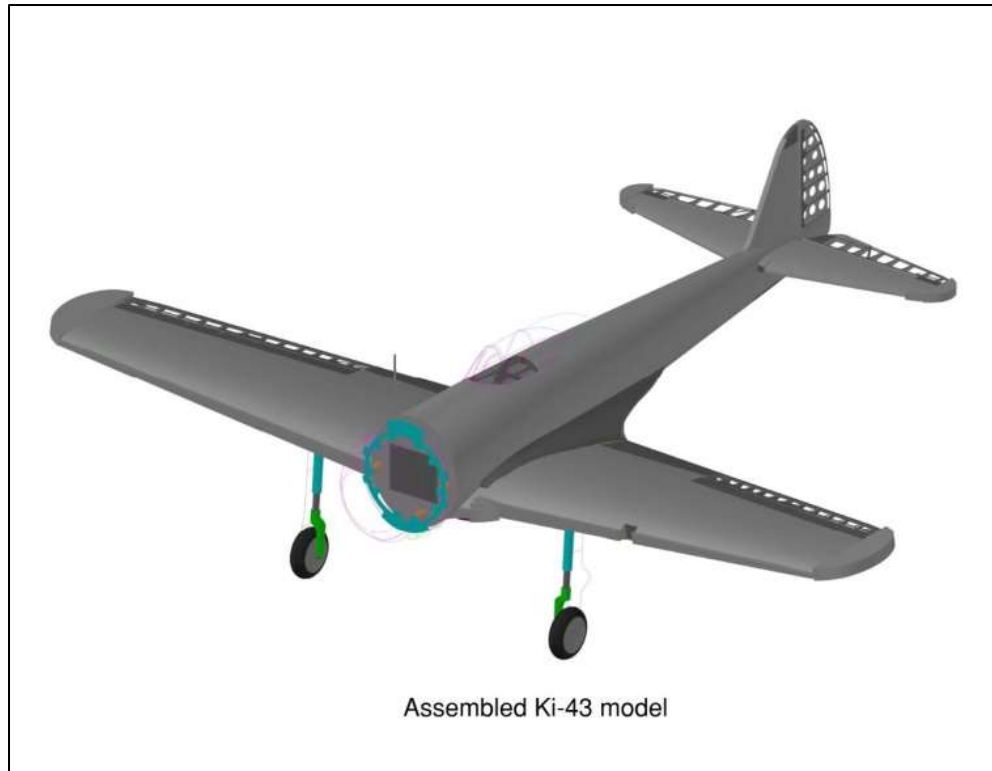
- Prepare former to receive wing saddle.
- Glue (epoxy) wing saddle F44. Use the wing center section to install wing saddle.
- Install rear fillet core F40







Congratulations the model is ready for finishes. Cover the plane with 3/4 or 1 oz/yd² fiberglass cloth and resin (epoxy or polyester), put details, panel lines, rivets, hatches, landing lights and color paint.



EQUIPMENT INSTALLATION

The model is designed with specific locations for the equipment installation. The first prototype was built with the elevator controlled by one servo installed in the tail, but the new revision uses two servos, one for each elevator, installed to the sides of the engine box below the rudder servo tray. Just be sure to install a robust pushrods for better performance.

The engine ignition unit, battery unit and radio battery can be installed in the front to the engine box using nylon cable zip ties or Velcro straps.

Air tank for landing gear system has to be installed through formers F8 and F9 and glued with hot silicone.

You can create your own radio switch/air valve/fuel valve compartment with a hinged hatch easily.

Ruder installation is using pull-pull system.

ENGINE INSTALLATION

Total model weight should be between 37 and 50 lbs. This range gives the option for engines between 85cc and 120cc. The prototype flew with a Moki 180cc with plenty of spare power.

The engine box is set up for two firewall positions: front position for 2-stroke gas engines using engine extension stacks, and back position for 4-stroke radial engines. Model is set for 0° - 0° down/right thrust line, centered in the firewall.

FINISH, SETUP AND FLYING

Use fiberglass cloth and polyester or epoxy resin over fuselage and wing leaving the flying surfaces to be covered with solartex or similar. We highly recommend the use of WarbirdColors paint. You will have so many color schemes for the Ki-43, more than any other Japanese warbird.

Once you have your model finish, it is time to locate the CG. Ideal CG location is 6" behind the projection of straight L.E. (Not the front of wheel well shape). But a good range is between 5.5" – 6.5" from the L.E.

The control throws for the Ki-43 are:

1. Ailerons 1.25" each way
2. Elevators 1.25" each way
3. Rudder 2" each way

4. Flaps approx. 80° max.

Flying characteristics of the Ki-43 are very predictable. It is like a pattern plane in slow motion. Very slow takeoff and landing capabilities, so you don't need to use much throttle. The prototype in the first flight didn't use flaps for takeoff or landing and it was very smooth.

Enjoy your model!!

Laser cut parts list

Section	Name	Description	Material	Thickness
Cowl	CR	Cowl Ring	Balsa	3/8
Fin	FN-1	Fin rib 1	Balsa	1/8
Fin	FN-2	Fin rib 2	Balsa	1/8
Fin	FN-3	Fin rib 3	Balsa	1/8
Fin	FN-4	Fin rib 4	Balsa	1/8
Fin	FN-5	Fin rib 5	Balsa	1/8
Fin	FN-6	Fin rear post	Balsa	1/8
Fin	FN-7	Fin front post	Balsa	1/8
Fin	FN-8	Fin LE form	Balsa	1/8
Fin	FN-9	Fin top block	Balsa	1/2
Fin	R-1	Rudder rib 1	Balsa	1/8
Fin	R-2	Rudder rib 2	Balsa	1/8
Fin	R-3	Rudder rib 3	Balsa	1/8
Fin	R-4	Rudder rib 4	Balsa	1/8
Fin	R-5	Rudder rib 5	Balsa	1/8
Fin	R-6	Rudder rib 6	Balsa	1/8
Fin	R-7	Rudder rib 7	Balsa	1/8
Fin	R-8	Rudder main core	Ply	1/16
Fin	R-9	Rudder L.E. support post	Balsa	1/8
Fin	R-10	Rudder skin	Ply	1/32
Fin	R-11	Rudder tip	Balsa	1/2
Fin	R-12	Rudder bottom block-top	Balsa	1/2
Fin	R-13	Rudder bottom block-lower	Balsa	1/2
Fin	R-14	Rudder bottom block-middle	Balsa	1/8
Fin	R-15	Rudder bottom block	Balsa	1/2
Fuse	F-1	Former 1	Lite Ply	1/8
Fuse	F-2	Former 2	Lite Ply	1/8
Fuse	F-2A	Double Former 2	Ply	1/4
Fuse	F-2B	Former stopper	LitePly	1/8
Fuse	F-3	Former 3	Lite Ply	1/8
Fuse	F-4	Former 4	Lite Ply	1/8
Fuse	F-5	Former 5	Lite Ply	1/8
Fuse	F-6	Former 6	Lite Ply	1/8
Fuse	F-7	Former 7	Lite Ply	1/8

Fuse	F-8	Former 8	Lite Ply	1/8
Fuse	F-9	Former 9	Lite Ply	1/8
Fuse	F-10	Former 10	Lite Ply	1/8
Fuse	F-11	Former 11	Lite Ply	1/8
Fuse	F-12	Former 12	Lite Ply	1/8
Fuse	F-13	Former 13	Lite Ply	1/8
Fuse	F14	Former 14	Ply	1/4
Fuse	F-15	Former 15	Lite Ply	1/8
Fuse	F-16	Former 16	Lite Ply	1/8
Fuse	F-17	Former 17	Lite Ply	1/8
Fuse	F-18	Former 18	Lite Ply	1/8
Fuse	F-19	Stabilizer base-holder rib	Lite Ply	1/8
Fuse	F-20	Front nose block	Balsa	3/8
Fuse	F-21	Front nose ring block	Balsa	3/8
Fuse	F-22	Central Stab support rib	Lite Ply	1/8
Fuse	F-23	Fin base	Lite Ply	1/8
Fuse	F-24	Engine box sides	Lite Ply	1/8
Fuse	F-25	Engine box doubler side - front	Lite Ply	1/8
Fuse	F-25D	engine box doubler side - back	LitePly	1/8
Fuse	F-26	Engine box front top plate	Lite Ply	1/8
Fuse	F-27	Engine box front bottom plate	Lite Ply	1/8
Fuse	F-28	Engine box bottom back plate	Lite Ply	1/8
Fuse	F-29	Rudder, tail servo trail	Lite Ply	1/8
Fuse	F-30	Wing bolt plate (4 units)	Ply	1/4
Fuse	F-31	Wing bolt plate reinforce (4 units)	Lite Ply	1/8
Fuse	F-32	Top stringer	Balsa	1/4
Fuse	F-33	Rear bottom stringer	Balsa	1/4
Fuse	F-34	Side Stringer	Balsa	1/4
Fuse	F-35	Antenna base	LitePly	1/8
Fuse	F-36	Antenna internal exit reinforce	Ply	1/32
Fuse	F-37	Front bottom fuselage reinforce plate	Lite Ply	1/8
Fuse	F-38	Fuel tank support plate	Lite Ply	1/8
Fuse	F-39	Cockpit floor	LitePly	1/8
Fuse	F-40	Rear fillet core	Ply	1/32
Fuse	F-41	Tail gear mount (2 units)	Ply	1/4
Fuse	F-42	Tail gear unit reinforce (3 units)	Lite Ply	1/8
Fuse	F-43	Central stab L.E. support plate	Ply	1/4
Fuse	F-44	Wing saddle	Ply	1/32
Fuse	F-45	Rear fillet block	Balsa	1/4
Fuse	F-46	Elevator torque guide	LitePly	1/8
Fuse	AN	Antenna core	Ply	1/16
Fuse	FW1	Front firewall	Ply	3/16

Fuse	FW2	Back firewall	Ply	1/4
Stab	S1	Stab rib 1 (2)	Lite Ply	1/8
Stab	S1	Stab rib 1 (2)	Balsa	3/32
Stab	S2	Stab rib 2 (2)	Balsa	3/32
Stab	S3	Stab rib 3 (2)	Balsa	3/32
Stab	S4	Stab rib 4 (2)	Balsa	3/32
Stab	S5	Stab rib 5 (2)	Balsa	3/32
Stab	S6	Stab rib 6 (2)	Balsa	3/32
Stab	S7	Stab rib 7 (2)	Balsa	3/32
Stab	S8	Stab rib 8 (2)	Balsa	3/32
Stab	S9	Stab rib 9 (2)	Balsa	3/32
Stab	S10	Stab back spar (2)	Balsa	1/4
Stab	S11	Stab LE base (2)	Balsa	1/8
Stab	S12	Stab LE block base (2)	Balsa	1/8
Stab	S13	Rear spar S7 to S9 ribs (2)	Balsa	1/8
Stab	S14	Stab LE block (2)	Balsa	1/2
Stab	S15	Stab tip (4)	Balsa	3/8
Stab	E1	Elevator rib 1 (2)	Balsa	1/8
Stab	E2	Elevator rib 2 (2)	Balsa	1/8
Stab	E3	Elevator rib 3 (2)	Balsa	1/8
Stab	E4	Elevator rib 4 (2)	Balsa	1/8
Stab	E5	Elevator rib 5 (2)	Balsa	1/8
Stab	E6	Elevator rib 6 (2)	Balsa	1/8
Stab	E7	Elevator rib 7 (2)	Balsa	1/8
Stab	E8	Elevator rib 8 (2)	Balsa	1/8
Stab	E9	Elevator rib 9 (2)	Balsa	1/8
Stab	E10	Elevator rib 10 (2)	Balsa	1/8
Stab	E11	Elevator front spar (2)	Balsa	1/8
Stab	E12	Elevator front tab spar (2)	Balsa	1/8
Stab	E13	Elevator torque plates (2)	LitePly	1/8
Stab	E14	Elevator skin (4)	Lite Ply	1/32
Stab	E15	Elevator tab (2)	Balsa	1/2
Stab	E16	Elevator LE	Balsa	3/8
Wing	W1	Wing rib 1 (2)	Ply	1/8
Wing	W2	Wing rib 2 (2)	Lite Ply	1/8
Wing	W2A	Wing rib 2A (2)	Lite Ply	1/8
Wing	W3	Wing rib 3 (2)	Lite Ply	1/8
Wing	W4	Wing rib 4 (2)	Lite Ply	1/8
Wing	W5	Wing rib 5 (2)	Ply	1/8
Wing	W6	Wing rib 5A (2)	Ply	1/8
Wing	W6A	Wing semi rib 6A (2)	LitePly	1/8
Wing	W7	Wing rib 7 (2)	Ply	1/8

Wing	W7A	Wing semi rib 7A (2)	Ply	1/8
Wing	W8	Wing rib 8 (2)	Lite Ply	1/8
Wing	W9	Wing rib 9 (2)	Lite Ply	1/8
Wing	W9A	Wing light rib	LitePly	1/8
Wing	W10	Wing rib 10 (2)	Lite Ply	1/8
Wing	W11	Wing rib 11 (2)	Balsa	1/8
Wing	W12	Wing rib 12 (2)	Balsa	1/8
Wing	W13	Wing rib 13 (2)	Balsa	1/8
Wing	W14	Wing rib 14 (2)	Balsa	1/8
Wing	W15	Wing rib 15 (2)	Balsa	1/8
Wing	W16	Wing rib 16 (2)	Balsa	1/8
Wing	W17	Central Main spar-shear web (2)	Ply	1/8
Wing	W18	Central Rear spar-shear web (2)	LitePly	1/8
Wing	W19	Central Rear spar (2)	Balsa	1/8
Wing	W20	Central LE base (2)	Balsa	1/8
Wing	W21	LE base center area (2)	Balsa	1/8
Wing	W22	Central wing back former	LitePly	1/8
Wing	W23	Outside panel main spar-shear web (2)	Balsa	1/8
Wing	W24	Outside panel rear spar (2)	Balsa	1/8
Wing	W25	Outside panel LE guide (2)	Balsa	1/8
Wing	W26	Outside panel LE base (2)	Balsa	1/8
Wing	W27	Wing light base	Lite Ply	1/8
Wing	W28	Aileron servo plate (2)	LitePly	1/8
Wing	W29	Aileron hatch frame (2)	LitePly	1/32
Wing	W29	Aileron hatch frame (2)	Balsa	3/32
Wing	W30	Flap servo plate (2)	Balsa	1/8
Wing	W31	Flap hatch frame (2)	Ply	1/32
Wing	W31	Flap hatch frame (2)	Balsa	3/32
Wing	W32	Bottom wing bolt plate (2)	LitePly	1/8
Wing	W33	Top wing bolt plate (2)	LitePly	1/8
Wing	W34	Wheel well reinforce (2)	Ply	1/32
Wing	W35	Central wing top plate	Balsa	1/8
Wing	W36	Front wheel well block	Balsa	1/2
Wing	W37	Wing tip blocks	Balsa	1/2
Wing	W38	Central LE plate	Balsa	1/2
Wing	A1	Aileron rib 1 (2)	Balsa	1/8
Wing	A2	Aileron rib 2 (2)	Balsa	1/8
Wing	A3	Aileron rib 3 (2)	Balsa	1/8
Wing	A4	Aileron rib 4 (2)	Balsa	1/8
Wing	A5	Aileron rib 5 (2)	Balsa	1/8
Wing	A6	Aileron rib 6 (2)	Balsa	1/8
Wing	A7	Aileron rib 7 (2)	Balsa	1/8

Wing	A8	Aileron rib 8 (2)	Balsa	1/8
Wing	A9	Aileron rib 9 (2)	Balsa	1/8
Wing	A10	Aileron rib 10 (2)	Balsa	1/8
Wing	A11	Aileron rib 11 (2)	Balsa	1/8
Wing	A12	Aileron rib 12 (2)	Balsa	1/8
Wing	A13	Aileron rib 13 (2)	Balsa	1/8
Wing	A14	Aileron rib 14 (2)	Balsa	1/8
Wing	A15	Aileron spar (2)	Balsa	1/8
Wing	A16	Aileron bottom skin (2)	Ply	1/32
Wing	A17	Aileron top skin (2)	Ply	1/32
Wing	A18	Aileron horn (2)	Ply	1/16
Wing	AT	wing Aileron top shroud	Lite Ply	1/32
Wing	FT	Wing top skin over flap area	Lite Ply	1/32
Wing	L1	Flap base plate	Ply	1/16
Wing	L2	Flap rear block (2)	Balsa	1/2
Wing	L3	Flap front block (2)	Balsa	1/2
Wing	LG	Landing gear plate	Ply	1/4
Wing	WL1	Wing lock system - male	Ply	1/4
Wing	WL2	Wing lock system - female	Ply	1/4
Wing	WL3	Wing lock plate - female	Ply	1/8
Wing	WL4	Wing lock plate - male	Ply	1/8

Some model construction photos.

Some improvement changes were made between the prototypes and the production kits.



