TANDY WALKER'S A 2<sup>nd</sup> CLASS BOMBER 1 to 9

**FW:1 Class A Bomber - Stab Structure**

I finished laying up the stab on the new 414 sq. in. Lanzo Bomber last evening. I took the picture below this morning to share with you. Note the incorporation of the laminated stab tips............Tandy

![Stab Structure.jpg](image)

**FW:2 Stab Bracing**

After completing the Class A Bomber stabilizer and elevator, I hinged the two together. I noticed the built up rear spar of the stabilizer, which holds the the forward portion of the hinges, could flex for and aft rather easily. Therefore, I added some 1/16" X 3/32" diagonal members to form an inplane truss between the mid spar and aft spar as shown in the picture below. Notice that a strip of aluminum angle is clamped to the stab rear spar in four places to keep the structure straight while gluing in the diagonal truss members. The rear spar is now stiff as a board! Later I will send some close up pictures of the laminated tip integrated into the stab and elevator structures.

![Stab Bracing 2.jpg](image)
FW:3 Completed Class A Bomber Stab

There are four attached pictures below. The first two show the integration of the laminated tip into the stab and elevator structures. The third one shows the total horizontal tail. The fourth and last picture shows the stab slot for the fin.
FW:4 Stab Platform Mount

The picture below shows the set up I used to jig and glue the stab platform mount onto the fuselage. I use four 4-40 nylon screws to hold the stab to the stab platform.

FW:5 Class A Bomber Stab Attachment

The first picture below shows the 1/16" stab mounting platform now glued on to the fuselage longerons. The top longeron had to be removed in this area in order to mount the stab platform. Notice the two plywood inserts integrated into the platform where the nylon mounting screw holes are.

The second picture is a bottom view of the stab mounting using the four nylon screws and nylon washers. I use nylon screws because they are lighter and because they do not vibrate loose like metal screws. Notice the spruce doublers used to reinforce the insides of the two longerons that the stab platform is bonded to. These doubles are used to compensate for having to cut the top longeron. Also
notice the 3/16" triangular strips bonded to the longerons, which are used to provide the interface between the longerons and the stab platform.

**FW:6 Radio Installation**

Hi Alfrado,

I want to share the FMA radio installation in my new little Lanzo Bomber with you. What you will be looking at is a section of the fuselage where the radio is. The nose of the fuselage is to the left. Since the fuselage cross section is a diamond, these pictures start with the upper right side and the following pictures will be rotated as follows:

**Picture 1** (Right Top, Forward is left and up is down) You are looking directly down on the ignition cut off PS20 servo with the circular control horn. You can see the end of the elevator PS20 servo on the left and rudder PS20 servo on the right. Also seen is Futaba switch and charging jack. The M5 receiver can also be seen.

**Picture 2** (Left Top, Rotating up 90 degrees, forward is left and up is up) You can see the side view of the ignition cut off PS20 servo with the circular control horn at the top. The M5 receiver is attached to its access door with Velcro. The 110 mah flight pack is held to a Velcro mount, which is screwed the left bottom side.

**Picture 3** (Left Bottom, Rotating up 90 degrees, forward is left and up is down) You can see the M5 access door and the two 2-56 nylon screws holding the 110 mah flight pack mount in place. You can also see the bell crank and micro switch used to cut off the ignition system. A 3/16" dowel slides through the two forward loops to hold the Modelelectric coil and transistorized ignition in place.

**Picture 4** (Left Bottom, same orientation as Picture 3) This shows the M5 access door removed. Notice the plastic stop on the antenna and the antenna tube running aft in the fuselage.

**Picture 5** (Right Bottom, Rotating up 90 degrees, forward is left and up is down) You can see the push rod from the ignition cut off servo to the bell crank used to close the micro switch. Starting at the left is the rudder PS20 servo, the elevator PS20 servo, and the end of the M5 receiver. Directly across from the receiver is the Futaba switch and charging jack.

**Picture 6** This picture shows the control linkage hook up to the rudder and elevator. Notice the antenna emerging from the antenna tube just behind where the rudder push rod emerges from its tube. Also notice the four Allen head 4-40 nylon bolts that attaches the stab to the stab platform.

This is probably more than you ever wanted know about my radio installation, but I thought
you might enjoy seeing these pictures...........Tandy

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<tr>
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**FW:7 Class A Bomber**

I have attached two pictures below showing the completed fuselage planking on the Class A Bomber.

**Picture 1**  This shows the top of the diamond shaped fuselage. The planking is inlaid between the structure frame members. Diagonals were added aft of the planking. The pylon structure attaches to center top longeron. The eyelet on the forward right is opening for the high tension lead.

**Picture 2**  This shows the bottom of the diamond shaped fuselage with the right side to the top of the picture. You can see the three hatches I use for equipment installation and access.................Tandy
Alfredo Herbon asked some questions about pictures in my earlier e-mail. This is my response to him.

The first picture below shows the fuel tank bonded to the back of the firewall. You are right, the overflow tube runs out the bottom right side and fuel pick up tube goes through the firewall on the upper left front side. The second picture taken from the front after the firewall was bonded onto the fuselage structure shows these two tubes more clearly.

OK, looking at the last picture below from front to back:

- The tube on the right forward side is the fuel overflow.
- The two eyelets are for the two 2-56 nylon screws that position the ignition battery.
- The hatch on the forward left side is for access to the ignition system.
- The hatch on the left side behind the eyelets is for access to the three servos.
- The plywood insert with the two holes are for the two 2-56 nylon screws that position the radio battery.
- The two aft plywood inserts on the right side are for the radio switch in front and the charging jack in the back.
- The aft hatch on the left side is for access to the radio receiver and permits installation of the switch and charging jack.
- The dark spot above and forward of the two eyelets is a 2-56 threaded boss for a threaded brass post that extends out 1/4". This post has a dual purpose. It is used as the (+) terminal charging the ignition battery, but also the (+) booster battery connection. The (-) booster battery connection is the engine ground. I use a booster battery to start and tune my engine at a
contest so I do not have to turn on my transmitter. At the flight line, however, I use the on board ignition battery and never use the booster.

- The eyelet on the forward hatch on the left side has a 2-56 threaded boss in it for a threaded brass post that also will extend out 1/4". This is the (-) terminal for charging the ignition battery.

Hope this helps Alfredo.

New A BomberTank.jpg

3Mount.jpg

Bottom Planking-1.jpg
"FW:9 Class A Bomber Rudder Attachment

I completed the sub rudder installation today and will share two pictures with you. The first picture below shows both the rudder and the sub rudder. You can see that I use the small Du-Bro nylon hinges without the pin that comes in them. There is a long piano hinge pin for the top three hinges and a short hinge pin for the bottom hinge. Notice that the bottom hinge pin has a loop that forms the tail skid and a "U" shaped wire soldered at the base to help align the tail skid. The sub rudder has two 1/16" dowels to key the sub rudder to the fuselage's bottom longeron.

The second picture shows the sub rudder in place and the rudder hinges pinned to the fin and sub rudder. Here you can clearly see the tail skid provided by the bottom hinge pin. There are two additional short 1/16" dowels in the edge of the sub rudder drilled with .031" holes to receive the two tail skid wire ends so they will not tear out.

I will silk cover both the fuselage and the sub rudder separately prior bonding the sub rudder on. This prevents the silk from pulling away for the juncture................Tandy

[Rudder 1.jpg]

[Stab Structure.jpg]