
70 Veco Pursuit - Aileron Servo Hatch Cover Design (Part 2)

1 message

Tandy Walker <rdb435021@icloud.com>
To: Tandy Walker <rdb435021@icloud.com>

15 January 2022 at 09:30

Report No. 70

Veco Pursuit

January 14, 2022

The aileron servo hatch covers were made by laminating 1/32" plywood with 1/16" balsa. The hatch cover base shown below was cut out of 1/32" plywood and carefully trimmed to fit the perimeter of the hatch opening. Notice the arrow and the "R" marked on the bottom of the base for reference.

cid:image001.jpg@01D80944.CE2AFEE0

In order to mark the location of the holes on the rear of the plywood base, the head of a 2-56 button head screw was cut off and a slot was ground into the top of the remaining screw as you can see below.

cid:image002.jpg@01D80944.CE2AFEE0

A screw driver was used to screw the screw into the unit (wooden blind nut), leaving just a couple of threads sticking up. A small drop of aliphatic glue was placed on the top of the screw. The plywood base was placed onto the hatch opening and pressed down on the screw. The glue marked the location on the base where the hole was to be drilled.

cid:image003.jpg@01D80944.CE2AFEE0

This shows a trial fit of the 1/32" plywood base. Notice that tape was used to hold down the front of the base.

cid:image004.jpg@01D80944.CE2AFEE0

Next a 1/16" balsa top cover shown on the right below was cut out to be glued on top of the plywood base.

cid:image005.jpg@01D80944.CE2AFEE0

Aliphatic glue was used to bond the balsa top cover to the plywood base. Lots of weight shown below was used to press the two together while the glue dried overnight.

cid:image006.jpg@01D80944.CE2AFEE0

This picture shows the laminated hatch cover. Even though the lamination dried overnight, the aliphatic glue caused it to warp up slightly. Notice that the top cover is shorter than the base in front by an 1/8" to provide for the cover's front attachment.



This shows plywood base's extension or lip out in front ready to be pushed forward under what will later be the wing's permanent 1/16" planking.

cid:image008.jpg@01D80944.CE2AFEE0

Here you see hatch cover pushed all the way forward against the edge of the planking for the front attachment.

cid:image009.jpg@01D80944.CE2AFEE0

The two 2-56 button head screws attach the hatch cover at the rear as shown below. Notice the 1/16" edge around the perimeter of the cover that will make the cover flush with the wing's center section 1/16" planking. Notice also that the heads of the screws are countersunk into the top of the hatch cover. Once the center section is planked, it can be bar sanded without encountering the screw heads.....Tandy

cid:image010.jpg@01D80944.CE2AFEE0

I decided to cover the bottom of the hatch cover with a layer of white silk as shown below.



A couple of coats of clear nitrate dope on the white silk shown below should take most of the warp out.....Tandy

