

INSTALLING THE WD-657 EXTERNAL STEP

The WD-657 External Step is mounted on the outside of the fuselage, making it easier for passengers to climb up on the wing. Steps may be installed on either side, but the drawings only show the right. These instructions use part number references for the RV-6/6A. Respective parts for the RV-7/7A and RV-9/9A will be similar although the part numbers may vary.

Remove the R-647 baggage floor and the F-650 Rear Baggage side.

The WD-657 Step weldment includes a steel tube that penetrates the fuselage side and baggage floor rib. Locate the center of the steel tube on the F-670 fuselage side skin. Use a long drill to pilot drill the fuselage and the floor rib. The RV-7 & -9 have pilot holes in the fuselage skin.

Cut a 1 ½" diameter hole in the fuselage side skin. Trim away the flanges of the F-623 rib and cut holes in the web F-625 rib. A die grinder with a fluted cutter works well.

When all the holes are cut, insert the WD-657 step. Be sure the flat plate of the WD-657 fits flush with the F-670 fuselage skin. Holes in the floor ribs may be enlarged to allow any movement needed to make the step plate flush.

Clamp the WD-657 in place and drill the steel plate to the fuselage side skin. Be sure to run a row of rivets through the flange of the vertical F-624 rib.

Drill three .188" holes in the F-6125 block for AN3 bolts.

Slide the F-6125 UHMW block over the end of the WD-657 step tube and clamp it to the outboard side of the web of F-626. Cleco the step to the side skin, then drill the hole in the WD-657 tube for the AN3-25 bolt. Use the hole in the F-6125 block as a drill guide. An angle drill is necessary for this step.

Drill the two bolt holes through the F-626 rib using the holes in the F-6125 as drill guides with the angle drill.

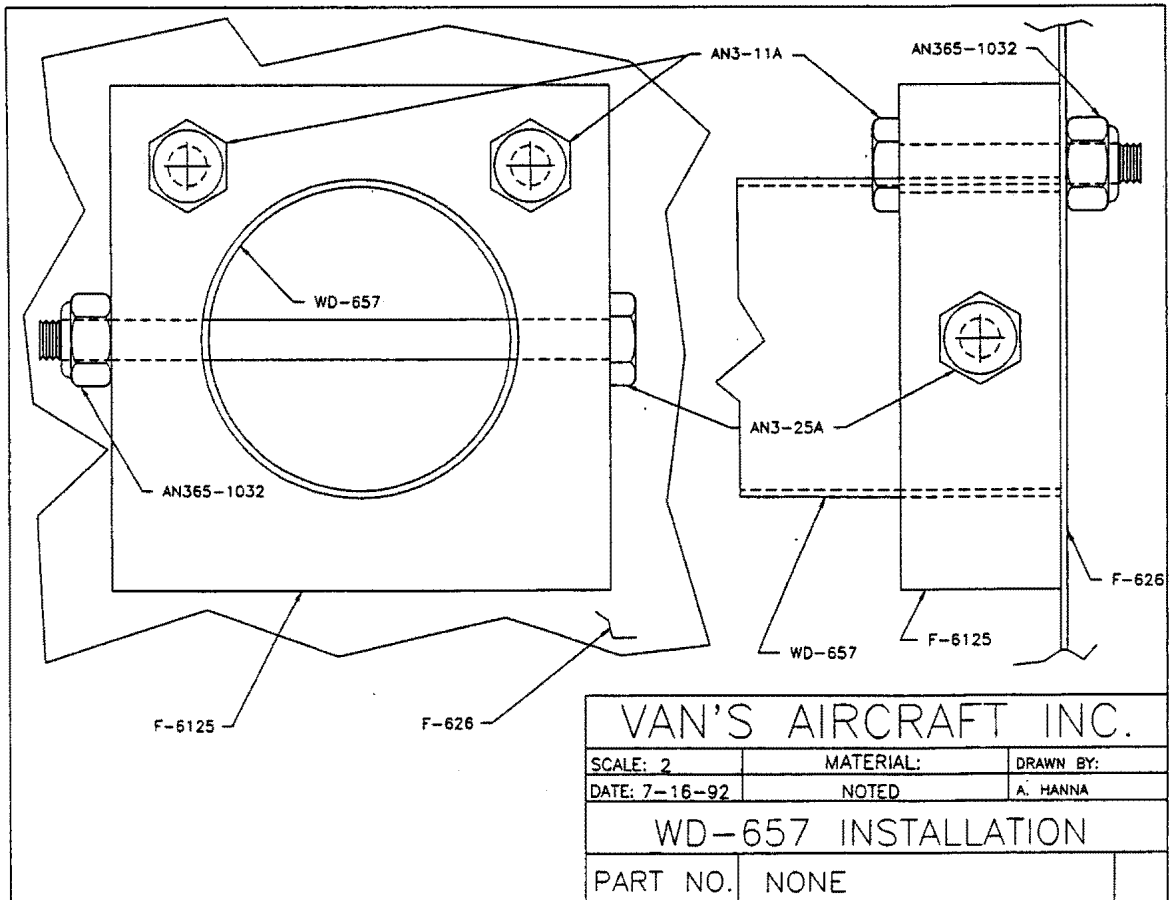
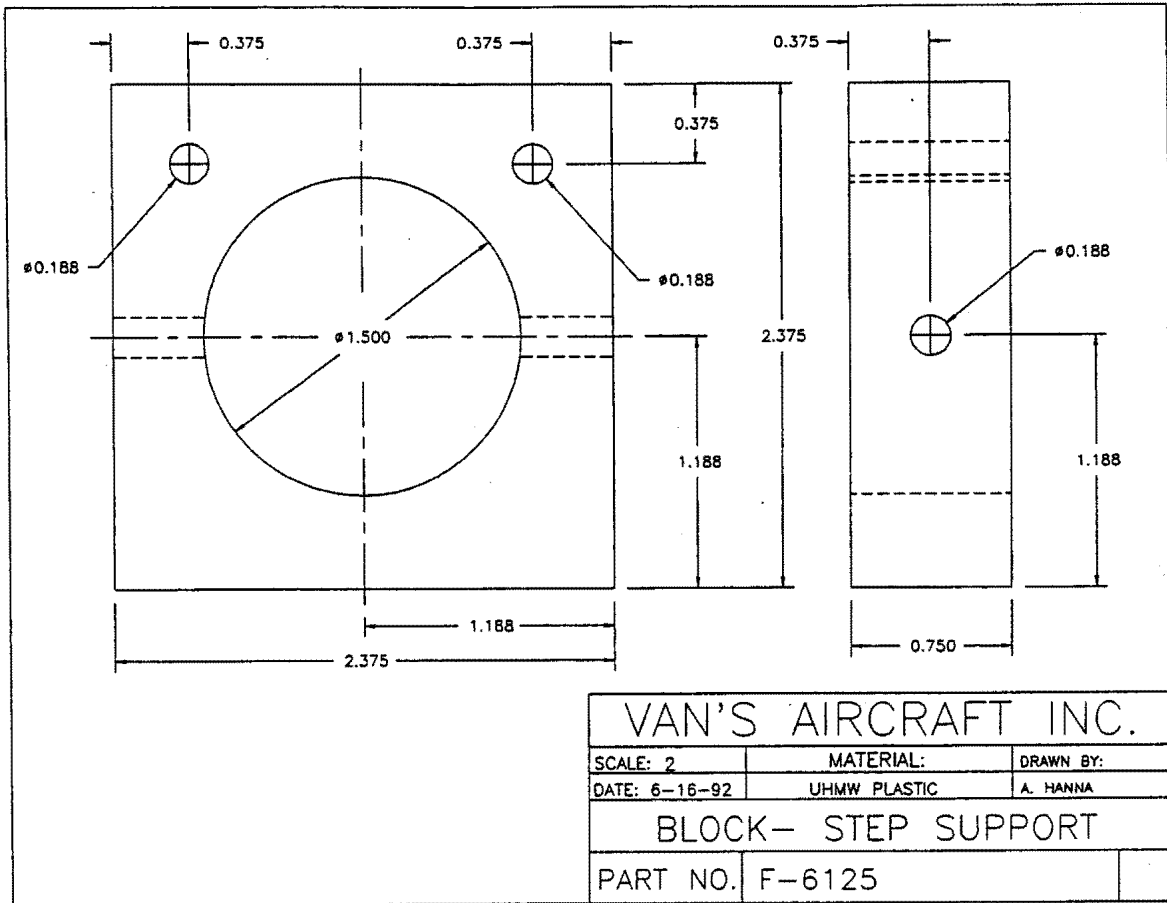
Remove the step and block for deburring and priming/painting. We recommend bonding a strip of non skid material to the step itself. Wet painted steel is very slippery.

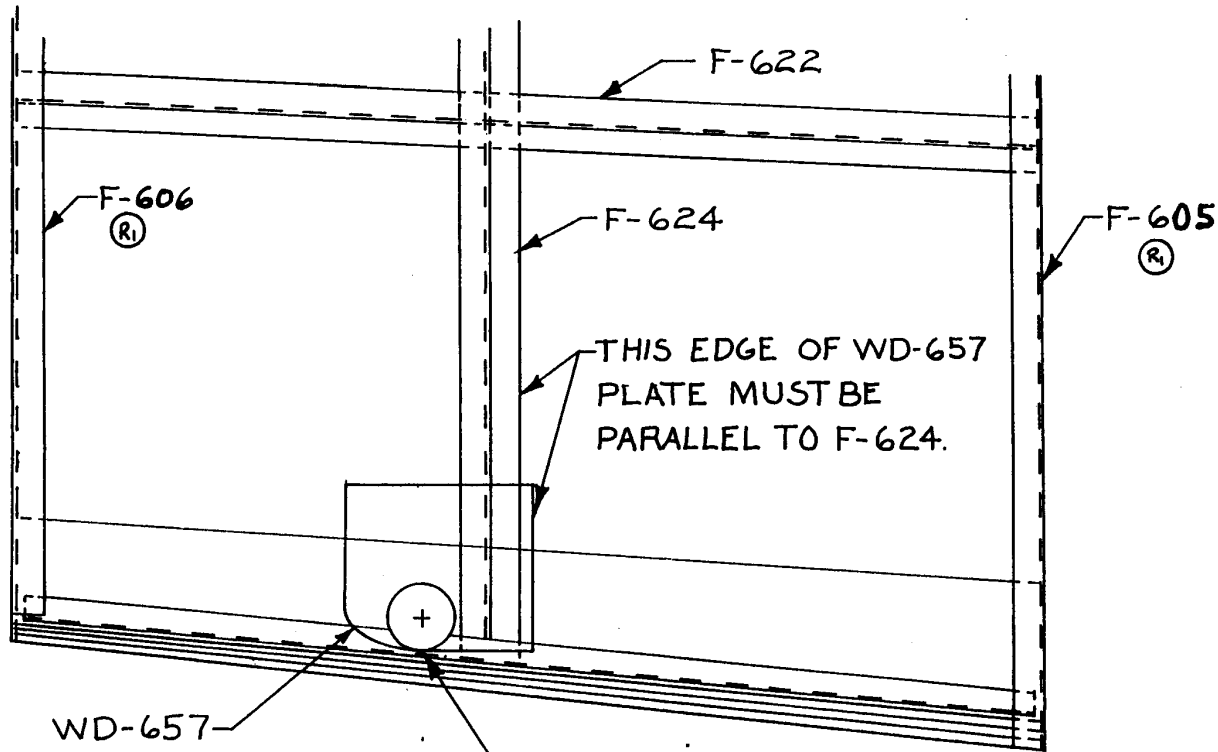
Re-install the WD-657 step with clecos to the F-670 fuselage side skin. Bolt the F-6125 block to the step with an AN3-25A bolt.

Bolt the block to the rib as shown.

Rivet the WD-657 step to the fuselage side.

Reinstall the baggage floor and the baggage side panel with LP4-3 blind rivets.





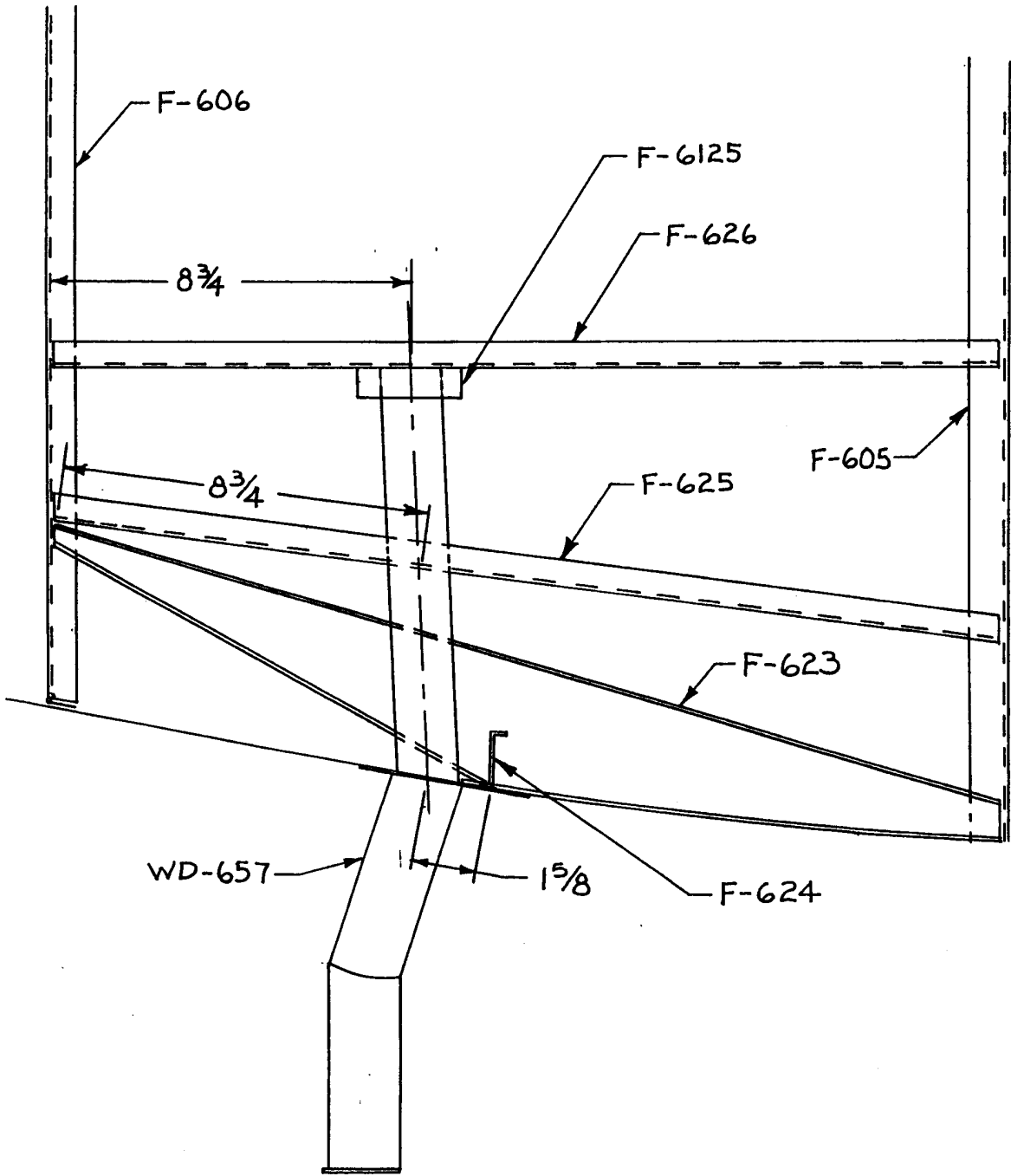
WD-657 TOP VIEW

WD-657
NOTE: THE EXTERNAL PORTION OF THE STEP IS NOT SHOWN.

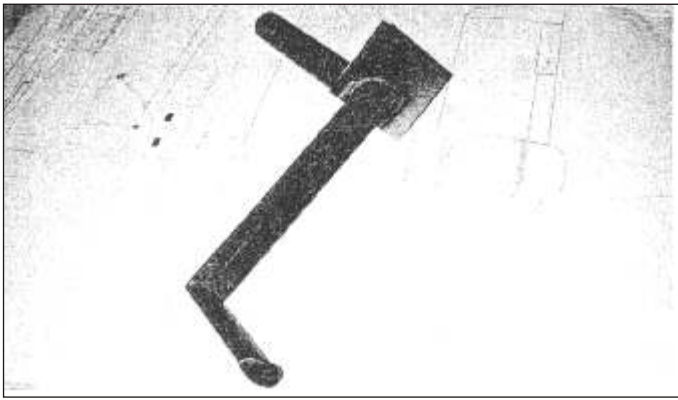
MOUNT SO THE BOTTOM OF THE WD-657 TORQUE TUBE SITS FLUSH AGAINST THE F-623 WEB.

VAN'S AIRCRAFT INC.	
WD-657 INSTALLATION	
SIDE VIEW	SCALE: 1/4

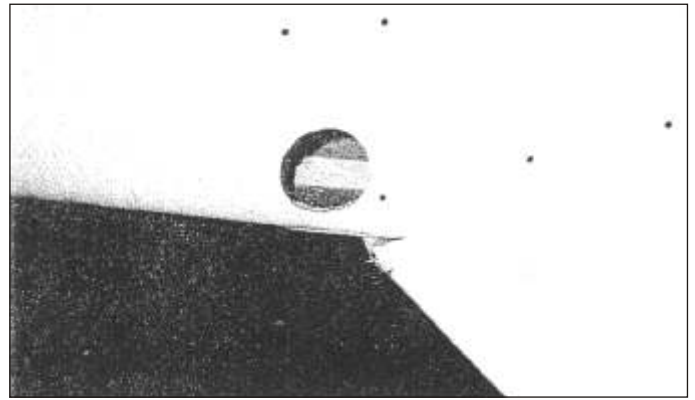
VIEW OF RIGHT SIDE OF AIRCRAFT LOOKING IN.



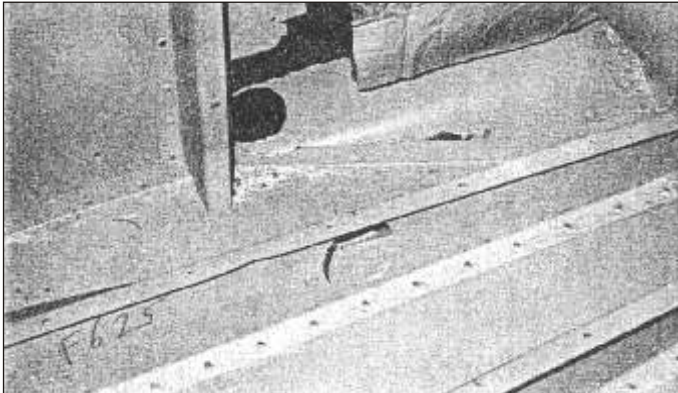
WD-657 TOP VIEW



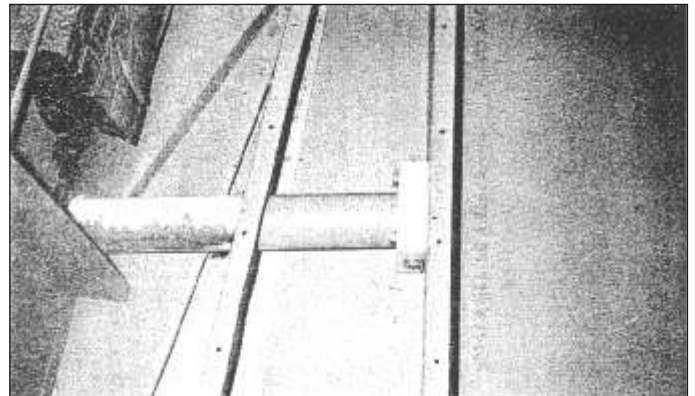
The WD-657 step is a welded steel unit which will corrode if left unprotected. Before final installation it should be primed and painted.



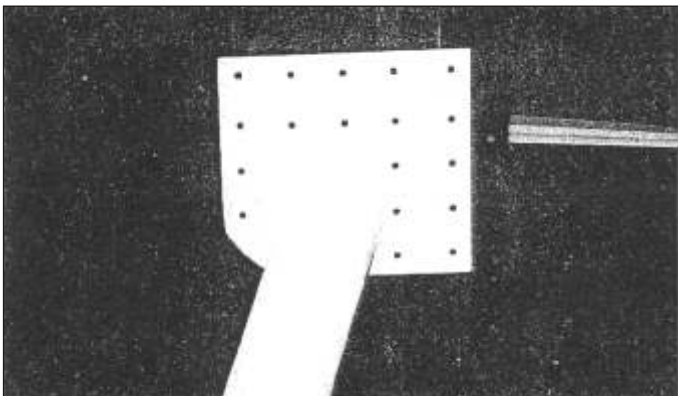
A fluted cutting bit in an air-driven die grinder cut the hole in the fuselage side quickly. The edges should be dressed with a file and sandpaper, then primed.



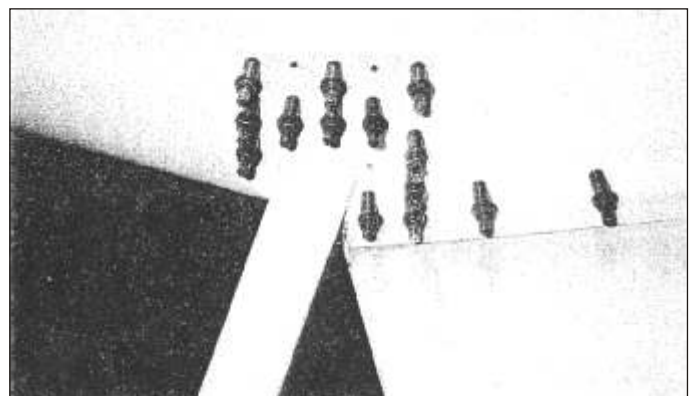
If the step is installed on a finished airplane, the baggage floor and side must be removed. A hole is cut in the fuselage side and the floor ribs to accept the step. (NOTE: This airplane has bulkhead F-624 installed backwards.)



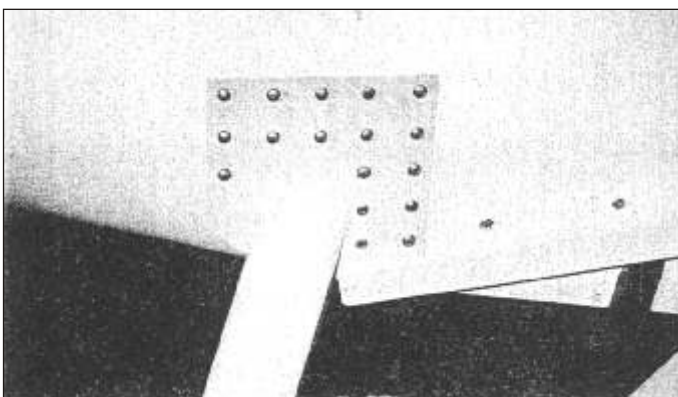
When the step is properly aligned, the F-6125 block may be positioned and drilled to the floor rib.



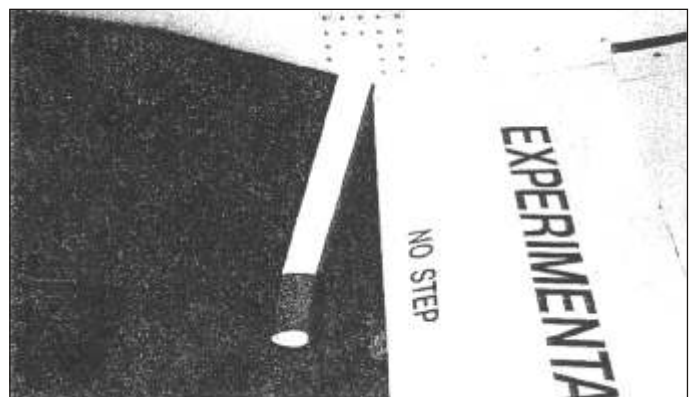
The step has been drilled, painted, and trimmed to match the curve of the fuselage.



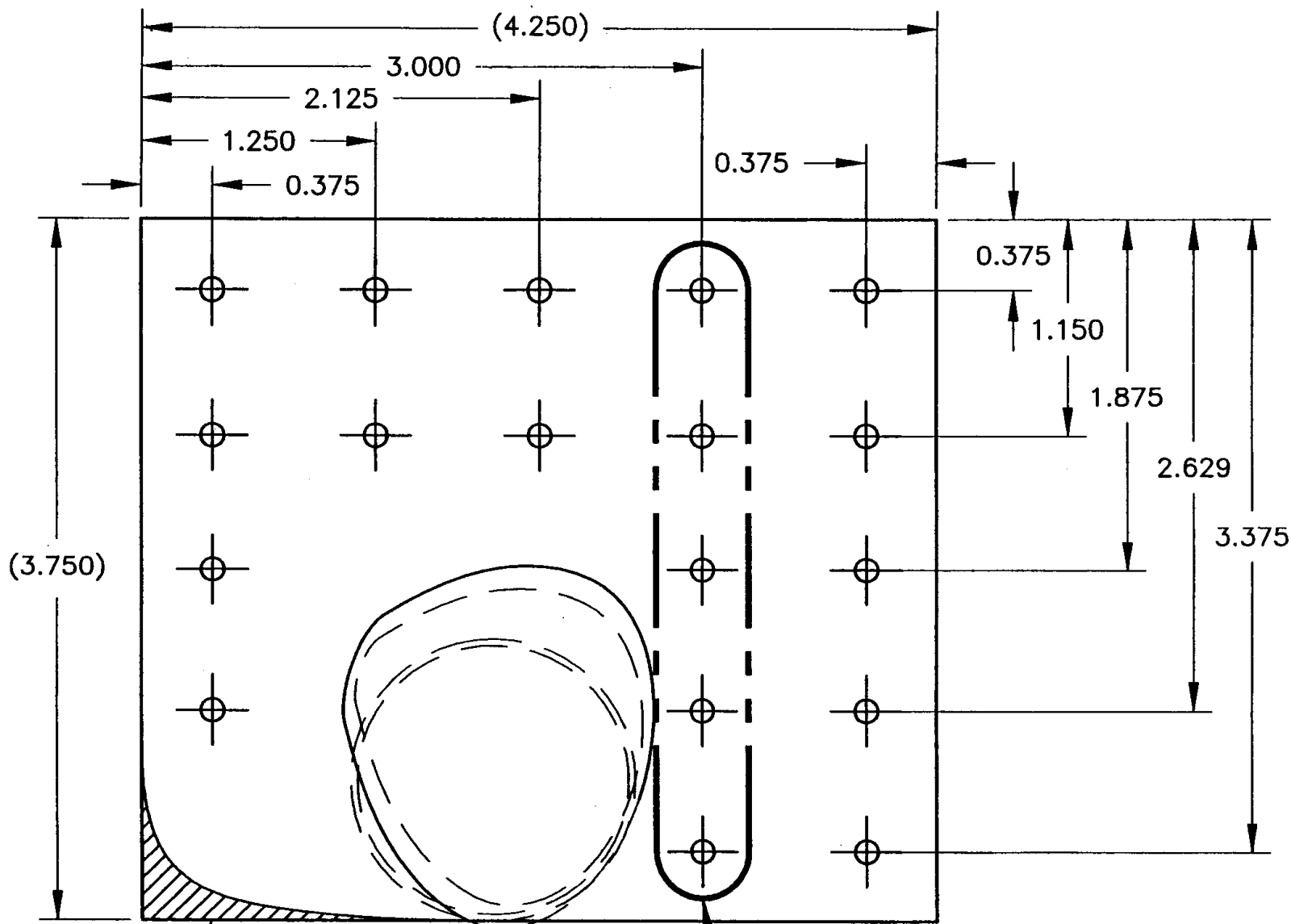
The step is reinstalled and used as a template to drill the fuselage side.



Either solid AN rivets, MD-42-BS blind rivets, or a combination, may be used to fasten the step to the fuselage.



The completed installation, with a strip of wingwalk material bonded to the footpad.



TRIM CORNER AS REQ'D
TO MATCH FUSELAGE

FULL SCALE

THIS COLUMN OF RIVETS SHOULD BE
ADJUSTED AS NECESSARY TO PASS
THROUGH THE FLANGE OF F-624 (RV-6),
F-724 (RV-7,9).