

## Shay Cab Sides & Front

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The plan was to put off the constructing the cab to the very end with the other cosmetic details. The locomotive will operate without the cab. On a recent visit to Cass I was told that they had done a several mile test run of the recently reconditioned Heisler without the cab ----- as I recall the boiler lagging hadn't been applied either.

However, when trying to layout the various controls and plumbing around the backhead it became clear that the cab walls would be very useful to get a correct perspective. So, I decided to make the two sides and front now and finish the cab later.

**Cass No 5:** Before making the cab some photos of shay cabs were examined. This is the right side of Cass No. 5. This cab has single windows on each side whereas Kenneth's design used

double windows on each side. Both designs were common in the 1900 -1920 era. Other photos can be viewed at the [Shay Information Website](#)



This is the left side of Cass No 5. It seems the cab has had several patches ---- maybe a fender bender or two .....



This shows the inside of Cass No 5. Note that the back side of the cab is behind the doors, against the coal bunker. Kenneth's design has the back side in front of the door openings.



The sides are made from 0.064" steel plate. The two sides were soldered together at the corners and cut at the same time using a band saw. The saw was run through the top edge to cut the windows. The cuts in the top were later silver soldered closed. The sawed edges were finished with a file. The rivet holes for the front and bottom were located using the same drilling fixture as used for the tanks. Only half the holes in the fixture were used --- rivets were stuck in the holes not used. (The same 1/16" OD rivets as used on the tanks will be used on the cab.) The cutout for rear cylinder on the right side was made after the two sides were unsoldered.



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Square stock was riveted to the bottom and front edges of the sides. Every third or fourth rivet is a 1/4" long 1/16" brass rivet that holds the square stock. The other rivets are 1/8" long 1/16" copper that only go through the sides. The brass rivets were too short to go all the way through the squares so 3/32" holes were drilled half way through the inner side and the rivet was peened over inside the hole using a 3/23" punch. The squares on the front edges were set back the width of the front. That made the rivet holes close to the edge of the squares, so close that some of the 3/32" holes went through the sides of the squares as shown in upper photo on right. The lower photo shows the outside view.



This photo shows the front and left side before the boiler opening was cut in the front. The front is held to the side with #1 button head cap screws that closely resemble the 1/16" rivets. The screw holes were marked with Whiteout when the rivets were installed. The little white patches are still visible. The dark stripe in the front is an area not reached by the pickling solution. (I need a larger glass or ceramic baking dish to hold the pickling solution for the flat plates. Maybe that would be a good Christmas present for the wife.)



The right side with cutout for boiler.



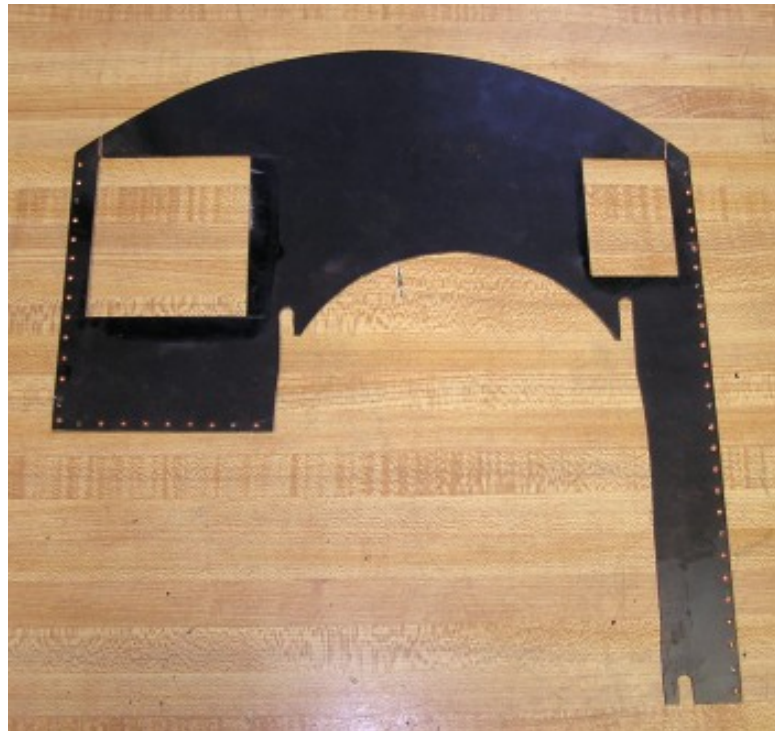
The left side of cab.



The interior.



**Update 1/23/04- New Front:** Shortly after I started to install the pipes through the cab front I realized that the window placement was not good. The windows needed to be moved toward the corners by about 3/8" and the lower edge of the windows raised somewhat. I waited until all the pipes were installed and then made the new front pictured on the right. The first front was used as a drilling template for the this second front making the job easy.



The cab front and sides are complete at this point except for the window frames.

[Shay Project](http://www.nelsonslocomotive.com/Shay/Cab/CabSides/CabSides.htm)  
[NLW Home](http://www.nelsonslocomotive.com/Shay/Cab/CabSides/CabSides.htm)

