

Old Stove Issues

Repairing Door Corner Cracks

Over the years we have seen an issue from overheating where a crack develops at the door frame corners.

The real problem is that the crack will work its way to the water jacket where it begins to leak.

While this has been addressed with the [new stove](#), the older stove may see this issue.

The key is in isolating the plate that the door frame attaches to, from the plate that makes up the front of the water jacket. In this way, even if a crack does develop from overheating, the crack cannot reach the water jacket.

To do this to an existing stove, the following steps are employed:

First we remove the front barn steel to expose the front plate. We then take detailed measurements of the front door to insure that we can replace it in its exact location on reassembly.



Next we cut the door and door frame from the stove, leaving about an inch of the front plate attached. This will be used to re-weld it to the new plate later. At this time we also repair any damage to the door frame, and any cracks or plate separation.



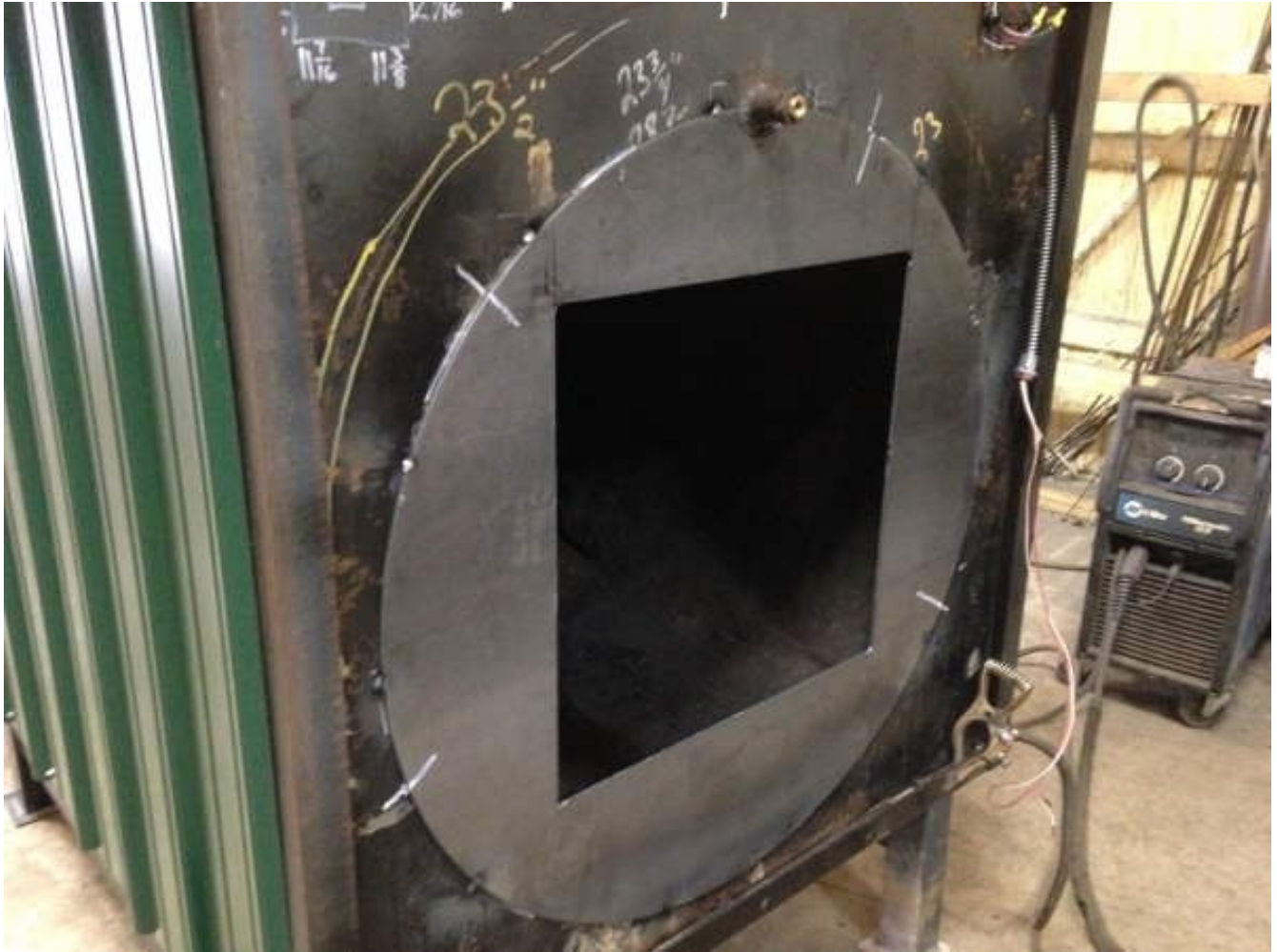
Then we cut the existing front plate out to the edge of the firebox.



This leaves the stove's water jacket plate only up to the firebox. All cracks are repaired and the water jacket is pressure tested for leaks. This insures the stove will be in good working order when complete.



Next we attach a new plate to the front of the stove. The outside diameter is past the opening to allow welding inside and out. The door hole is placed based on the previous measurements to insure proper location on the door frame. We re-pressure test the stove to insure none of the welding has created any new issues and the stove is still properly sealed.



Then the door frame is reattached to the front of the stove. Again the previous measurements are used to insure exact realignment of the door frame. The frame is welded inside and out.



New angle is added for the barn steel, this angle is cut back to compensate for the door frame actually sticking out farther from the new plate. Everything is painted to prevent rusting.



Before the door is put on, it is checked for damage and repaired.



Finally the stove is reassembled, tested, caulked, and ready for service.

