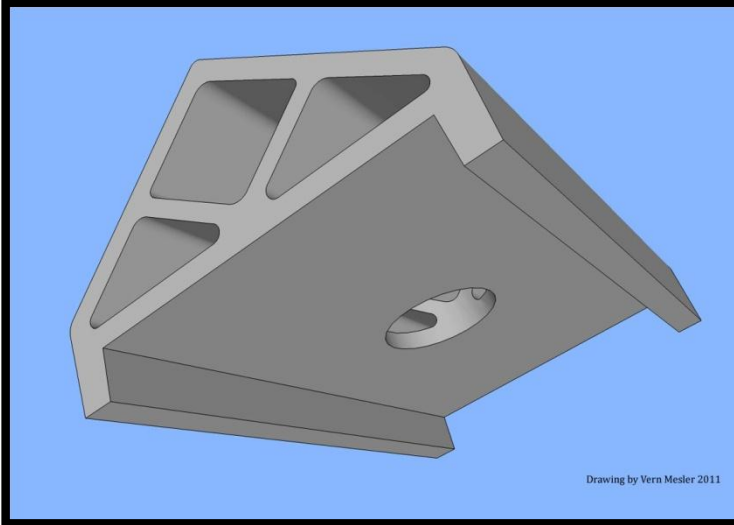


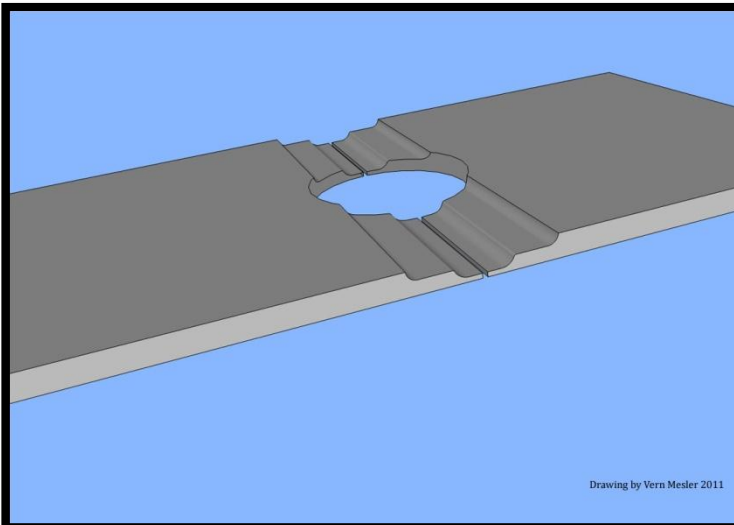
Recommendations for repair of cast iron shoes Gorham Howe Truss



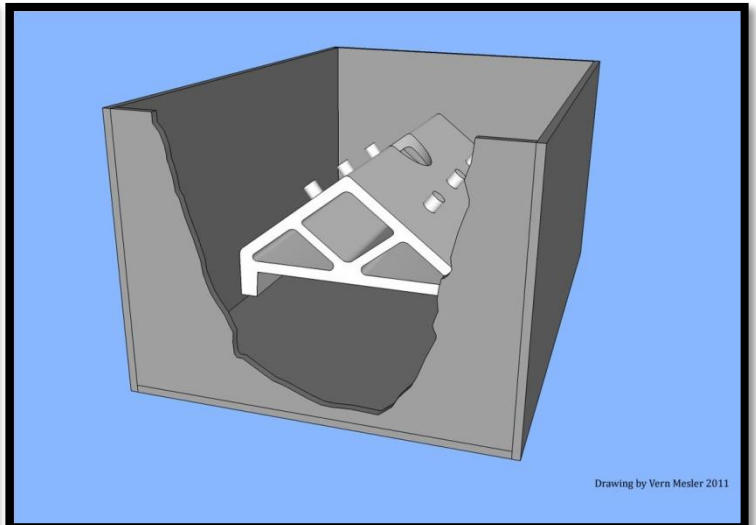
Cast iron shoe. (In preparation for repair, dye penetrant non-destructive testing will be performed to identify cracks.)



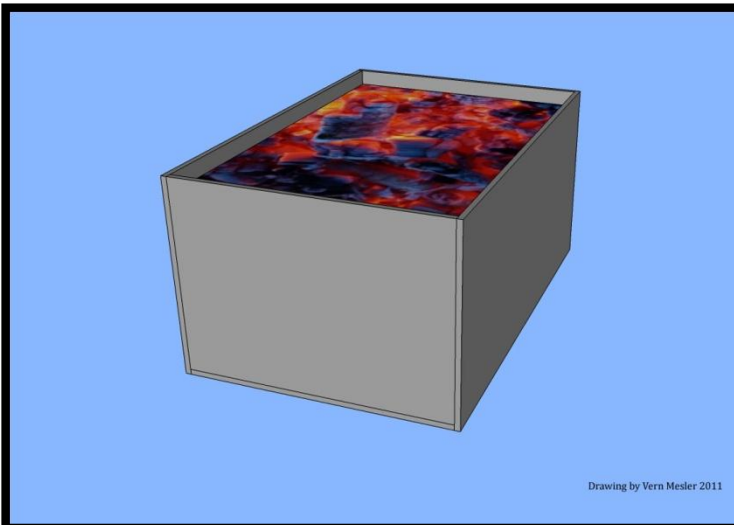
Joint preparation for braze welding begins with chipping using a pneumatic hammer to produce a joint that has a good anchor pattern. (Photo shows a previous repair.)



The joint profile must provide sufficient surface area for a successful braze weld.



The cast iron shoe will be placed in a steel firebox for pre-heating.



Pre-heat the cast iron shoe at 1200 °F for 6 – 8 hours.
Industrial bulk charcoal provides the fuel for the heating process.

Comments

- 1 Dye penetrant non-destructive testing (NDT) will be performed to identify cracks.
- 2 Filler metal from previous repairs must be removed before the recommended profile can be made. The dimensions of the previous repair may affect the dimensions of the new profile.
- 3 Braze welding begins when the cast iron shoe is removed from the fire box. Recommended filler metal: 3/8" silicon bronze. Once the brazing is complete, the cast iron shoe is placed back in the fire box without the charcoal and covered with a fire blanket until completely cooled.

Recommendations prepared by Lansing Community College (Michigan) welding faculty Vern Mesler, Bill Eggleston, Roy Bailiff, Jeff Haynes, and Kevin Whitford. (Lead Faculty for Welding: Cathie Lindquist)