Tuyere Iron for Fabricated Forge (Brake Drum) Fire Pot

by David Fink, Lumpkin, GA

Materials:

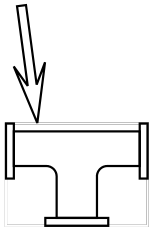
Pipe diameters can be either 2" or 3", depending on requirements.

1 Pipe tee
1 90° elbow
1 Floor flange
1 close nipple
1 4" x 4" 14 or 16 gauge sheet metal

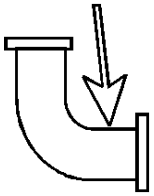
NOTE: If you use galvanized fittings, make sure you grind the galvanizing off.

Keep pieces straight and even.

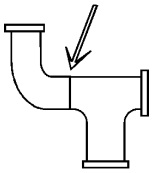
Cut Tee here and save flange

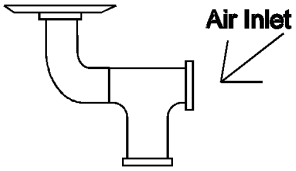


Cut Elbow here



Weld together here

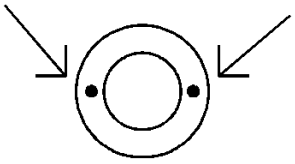




Weld floor flange to top

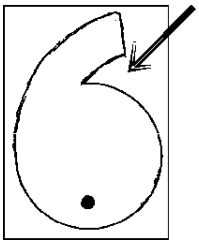
Alternately the floor flange can be attached using a close nipple. File out remaining threads in top for smoother air flow. The flange will then bolt directly to the brake drum or other fire pot.

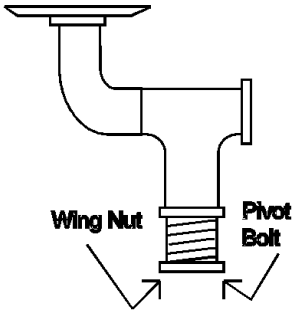
Sliding Ash Dump



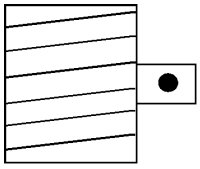
Take cut off flange from "T", making sure it's flat. Drill and tap 2 3/16x24 hole opposite one another.

Cut the piece of sheet metal to slightly larger than flange. Line up holes and drill cover. A 3/16x24 bolt screwed in from the back side of the flange allows a wing nut to secure the cover. Screw on to close nipple and thread to bottom of tuyere iron.



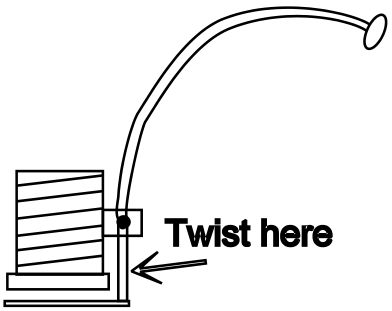


Dumping Ash Gate - If you don't like the sliding gate, try this one.



Weld a piece of 3/16x3/4 about 2" long to the nipple, and drill a sloppy 1/4" hole.

Screw flange onto nipple and thread nipple into bottom of tuyere iron.



Weld piece of 14-16 ga. sheet metal to 3/16x1/2 about 20" long for a handle. Bend to fit sheet metal over flange while the shaft lines up with the support piece welded to the nipple. The handle should be twisted 1/2 twist just below the support piece. Line up the hole and drill a 1/4" hole in the handle.

Bolt with a double nut for loose but not sloppy fit. Weld a short piece of 3/4" to end of handle for a counterweight. Adjust handle for clearance and easy hand reach.