

Construction checklist

Preparation

- Read through the entire assembly instruction manual.
- Remove the lid from the cart assembly and tightened the bracket bolts (if needed).
- Center the internal support ring in the lid.
- Remove the wheels in preparation to paint the cart.

Painting

- Paint the entire cart.
- Re-install the wheels after the cart's paint is dry.
- Paint the furnace lid and body shell with heat resistant paint.
- Install the lid raising lever on the hinge's stub mount.

Preparation for installing refractory

- Fabricate the lid vent form. A 3" diameter 2-1/2" tall cylinder.
- Fabricate the drain form. A 2" diameter 2-5/8" tall cylinder.
- Fabricate the chamber form. Cut top and bottom disks and secure them in the form tube.
- Fabricate the tamping tool and centering guides from plywood.
- Obtain a suitable mold (3-1/2 to 4" diameter and 1-1/2" tall) to form plinth blocks.
- Securely cover the tuyere hole with tape from outside the furnace shell.
- Obtain refractory. Buy or mix your own from scratch.

Construction checklist is continued on the next page.

Construction checklist page 2

Installing the refractory

- Gather all forms, tools (tamping stick, centering guides, hand shovel) and organize them neatly.
- Mix the refractory according to the instructions.
- Place drain form in furnace baseplate and tamp in the base.
- Center the chamber form and ram refractory *half-way* up the furnace body.
- Insert the *half-full* furnace body into the cart so it won't have to be installed when full and heavy.
- Ensure that the chamber form does not "float" and rise upward in the refractory.
- Complete furnace body and "strike-off" the top of the furnace refractory flat and level.
- Take note of when the body was finished. Return every 30 minutes to check the refractory's firmness, to carve the burner passage.
- Set the vent form in the lid.
- Center the lid's internal support ring. Using strong tape on the outside of the lid brackets where the ring's arms protrude will help keep the ring centered.
- Fill lid with refractory. Avoid leaving air pockets or other such flaws.
- Strike-off the surface of the filled lid flat.
- Make plinth blocks with the remaining refractory.
- Check the body refractory for firmness. Carve burner passage if firm enough to support itself.
- Allow at least three days to pass for the refractory to harden. Starting date: ____/____/____.
- Fire the lining slowly as instructed in the manual.
- Check for damage to lining. Repair as needed. Hairline cracks are normal with all refractory.
- Congratulate yourself on completing the build! Follow the instructions in the user's manual to install the propane components and use the furnace. Happy Metalcasting!