

X-06: Prepare Furnace for Entry (Arc Melt)

SAFETY FIRST

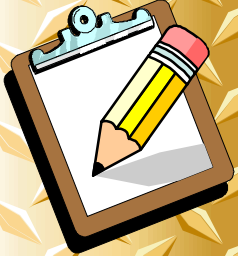
- Follow all Caterpillar facility safety standards when performing this task.
- A key and locking mechanism is built into the arc furnace breaker and entry door system.

EQUIPMENT

- hand radio

RESOURCES

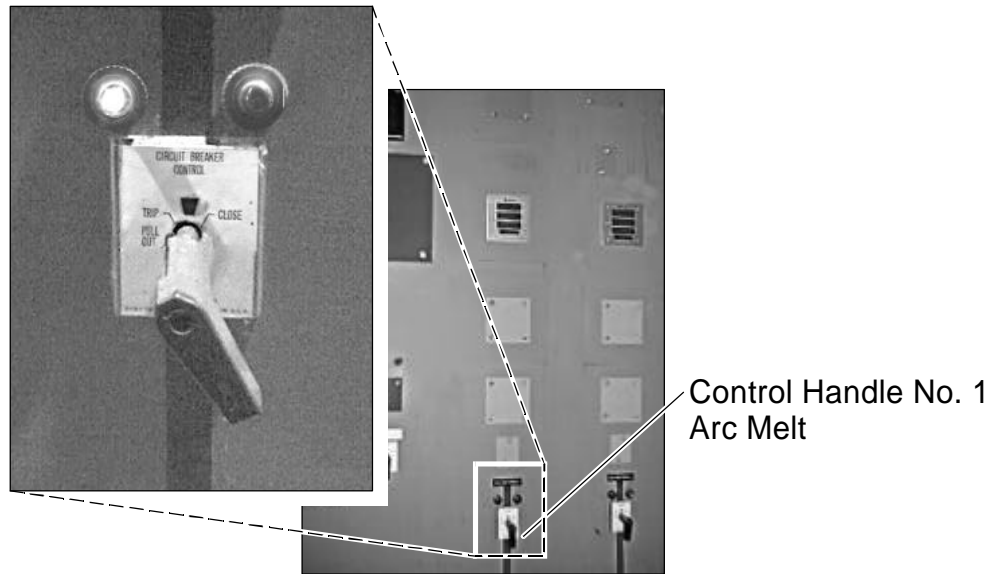
- none



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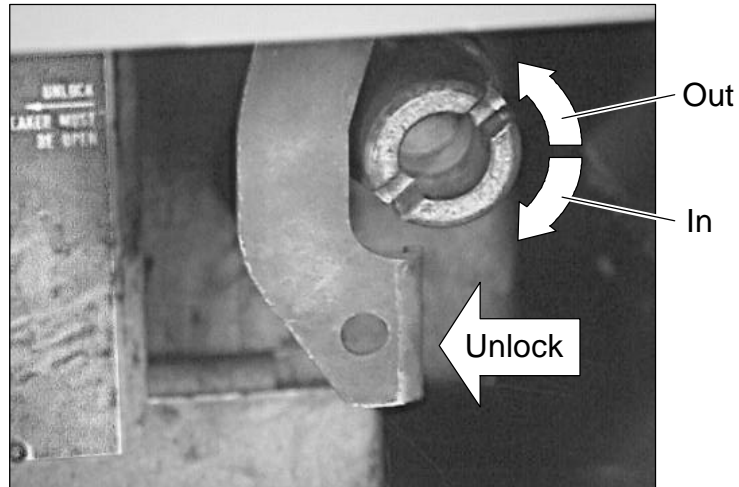
Part A: Disconnect Power

1. Disconnect electrical power to the furnace in building QQ.
 - Notify the control tower that the power will be disconnected.
 - Turn the appropriate furnace control handle counterclockwise on the control panel, and pull it out. See the figure below.



Arc Melt Control Panel

2. Rack out the induction furnace breaker.
 - Locate the breaker crank.
 - Open the lower breaker access door.
 - Rotate the locking lever clockwise. See the figure below.



- Rotate the crank counterclockwise to rack out the breaker.

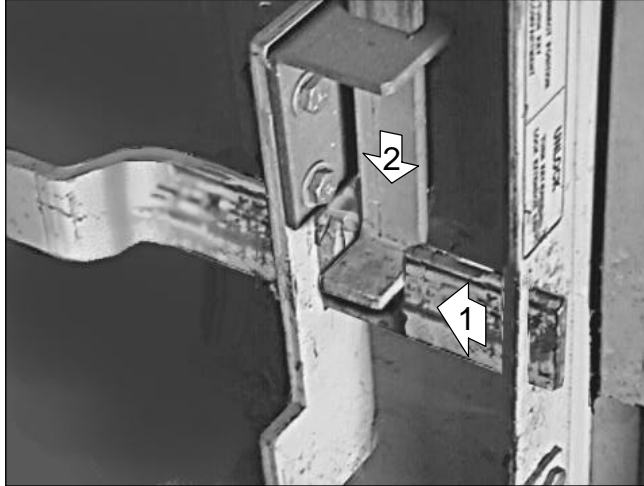
Note: The breaker will stop in the TEST position.

- Rotate the locking lever clockwise and continue racking out the breaker until it stops in the DISC position. See the figure below.

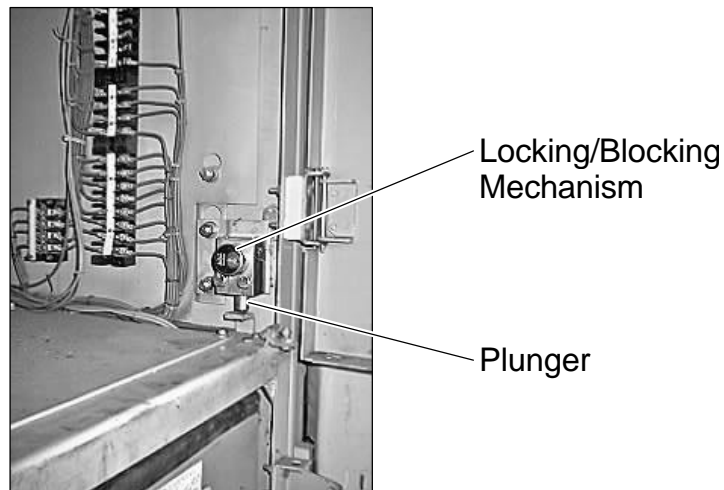


- Open the main breaker door.

- After the breaker is in the disconnect position, push in on the interlock bar located at the bottom right corner of the cabinet. See the figure below.

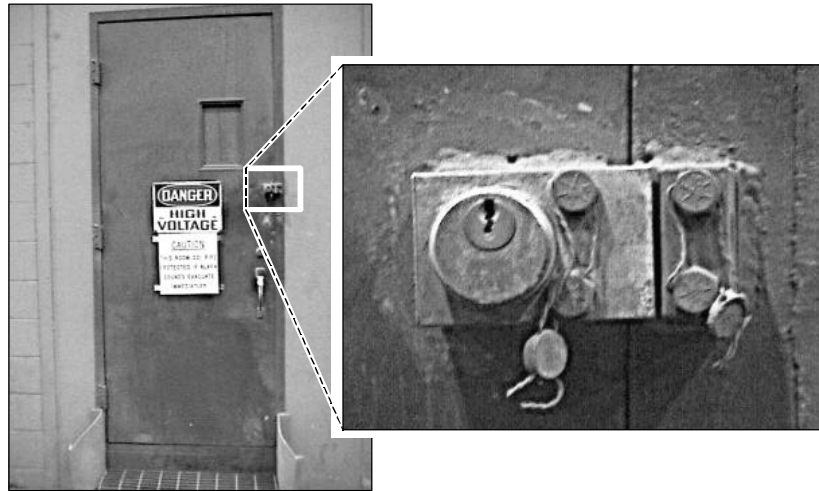


- Lock the locking/blocking mechanism, make sure the plunger is fully extended, and remove the key. See the figure below.



3. Unlock the appropriate furnace entrance door.
 - Locate the appropriate door.

- Insert the key into the lock and unlock the main entrance door. See the figure below.



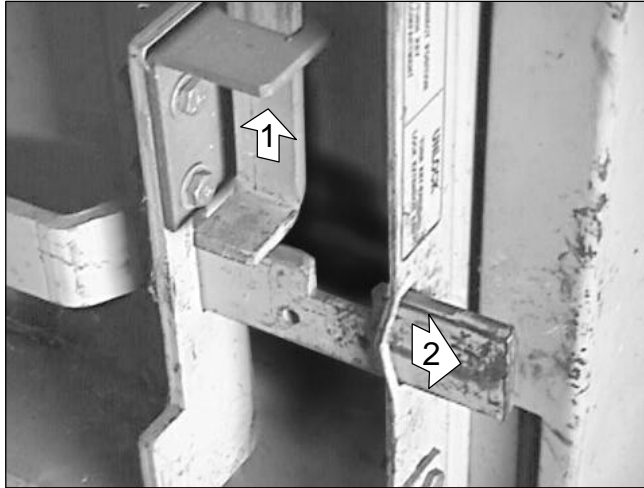
Note: Inside the room is a CO₂ Fire Extinguisher system. Heed the caution shown below.



Part B: Restore Power

1. Lock the entrance door.
 - Close and lock the main entrance door and remove the key.

2. Restore electrical power to the furnace in building QQ.
- Insert the key (from the main entrance door lock) in the locking/blocking mechanism and unlock the mechanism. Ensure the plunger is fully retracted.
 - Lift up on the vertical bar (1) and pull out on the interlock bar (2). See the figure below.



- Close the main breaker door.
- Rack in the arc furnace breaker through the small access door.

Caution: If the breaker is hard to rack in, it's binding. Rack the breaker out, realign, and restart the rack-in process.

- Notify the control tower that the furnace is ready to be restored.
- Push in on the arc melt handle on the arc melt control panel and rotate it clockwise.
- Verify with the melt tower that they have power in the tower.