

Electrical Inspection

1. Check calibration of fan limit control at room temperature. Failed: [] Passed: []
2. Check settings on fan limit control. Fan on @ 130°Failed: [] Passed []
Fan off @ 100°Failed: [] Passed []
Limit off @ 200°Failed: [] Passed []
3. Make sure fan limit control is properly wired and will stop burner/flame in the event of fan failure.
(Physically check fan limit control; or unhook wires to verify.)Failed: [] Passed: []
4. Check electrical wiring for burned/naked/incorrect/loose wiring on burner Failed: [] Passed: []
5. Check electrical wiring for burned/naked/incorrect/loose wiring on pump Failed: [] Passed: []
6. Check electrical wiring for burned/naked/incorrect/loose wiring on heater cab.Failed: [] Passed: []
7. Check electrical wiring for burned/naked/incorrect/loose wiring on term. stripsFailed: [] Passed: []
8. Check for cracks in printed circuit board (Honeywell/Carlin oil primary). N/A:[] Failed: [] Passed: []
9. Check for broken plastic terminal strip holder clip (only on H-S burner). N/A:[] Failed: [] Passed: []
10. Check quick disconnect cord prongs and receptacle plug for burnout. ...N/A:[] Failed: [] Passed: []

Burner Condition

11. Check nozzle for wear or damage.Failed: [] Passed: []
12. Check retention head for cleanliness and proper vortex (bend on fins)Failed: [] Passed: []
13. Check electrical heaters in burner for proper operation and amperage.Failed: [] Passed: []
14. Check preheater block temperature calibration.Failed: [] Passed: []
15. Check for external oil and air leaks on the burner.Failed: [] Passed: []
16. Check switches for bad connections and loose posts etc.Failed: [] Passed: []
17. Check electrodes for wear or damage.Failed: [] Passed: []
18. Check for dirty preheater block screens. (Reznor only)Not Applicable: [] Failed: [] Passed: []

Cabinet Condition

19. Check belt condition and tension on squirrel cage (if applicable).N/A: [] Failed: [] Passed: []
20. Check furnace tubes and chamber for ash.Failed: [] Passed: []
21. Check the inside and the outside of the chamber, fire-drum, flame wall, tubes, tube plates, and corners for
cracks, rusting out, warping, and weak spots.Failed: [] Passed: []
22. Check target for cracks and deterioration.Not Applicable: [] Failed: [] Passed: []
23. Check baffles for burnout.Not Applicable: [] Failed: [] Passed: []
24. Check the exhaust outlets for holes/exhaust leaking.Failed: [] Passed: []
25. Check the clean-out doors, seals, and surfaces to make sure they are not cracked,
crooked, warped or leaking exhaust.Failed: [] Passed: []
26. Check burner fasteners to be sure everything is fastened securely.Failed: [] Passed: []

Furnace Running

27. Check Ohms on electric eye to verify proper operation.(_____ Ohms) Failed [] Passed: []
28. Check time out on oil primary/flame controller to verify burner will shutdown in event of
flame out.(_____ Seconds) Failed: [] Passed: []
29. Check air proving switch to verify shutdown in the event of loss of air pressure. Failed: [] Passed: []
30. Check air compressor (if applicable).Not Applicable: [] Failed: [] Passed: []
31. Check burner blower motor condition for noisy bearings, balance, and full speed: Failed: [] Passed: []
32. Check voltage output on transformer or igniter.Failed: [] Passed: []
33. Check high voltage electrodes for proper high voltage ignition spray pattern in front of nozzle, to be sure it
does not arc on top of nozzle when running (check with mirror).Failed: [] Passed: []
34. Check flame vortex pattern with flame running to see that flame runs at correct distance from retention
head. (Check with mirror.)Failed: [] Passed: []

- 35. Check operating air and oil adjustments etc.Failed: [] Passed: []
- 36. Check diagnostic lights for brightness and proper operation.Failed: [] Passed: []
- 37. Check the unit's fan/blower motor condition.
 - Full speed/out of balance/noisy bearings :Failed: [] Passed: []
- 38. Check repeatedly to make sure the flame ignites properly.Failed: [] Passed: []
- 39. Check burn quality to be sure it is firing properly and efficiently.Failed: [] Passed: []
- 40. Check for proper pump wiring to be sure pump stops when burner stops.Failed: [] Passed: []
- 41. Check pump motor condition: Full speed/noisy bearings:Failed: [] Passed: []
- 42. Check for excessive noiseFailed: [] Passed: []
- 43. Check for clean exhaust emissionsFailed: [] Passed: []
- 44. Check for normal heat outputFailed: [] Passed: []
- 45. Check total amperage draw when unit is running. [_____amps].....Failed: [] Passed: []

Inspected by: X **Date:** _____

Sold to: _____
 Address: _____

 Phone # _____

Customer has received copy of his responsibility for installation & instructions & agrees to send his finished checklist back to us to validate his warranty.

Print: _____ **Sign:** _____ **Date:** _____

Model # _____ Customer's Responsibility Before, During, and After Installation Ser.#: _____

1. Mount heater out of the shop driving lane for driving, backing, and forklift traffic. Did you know that dangerous semi-truck drivers have backed in shops at a wrong angle and have knocked the heater off the ceiling while it was running. Not a good idea.Failed: [] Passed: []
2. Mount heater minimum 3' down from ceiling, and 3' away from wall (in all directions) for future service needed and for heat / fire protection. Do not store cardboard boxes, sawdust, straw, or parts boxes etc. in the vicinity of the heater (minimum 30' away).Failed: [] Passed: []
3. Fasten furnace and stack system, so that it doesn't fall down.Failed: [] Passed: []

Check Exhaust Pipe for Proper Installation

4. When going through the ceiling or side wall, you must use triple wall, 2,100°, all-fuel Class A stack (chimney). Don't Know: [] Failed: [] Passed: []
5. Cut insulation back (or use insulation guard) in attic to prevent hot stack fire. Don't Know: [] Failed: [] Passed: []
6. Check exhaust pipe to be sure joints are screwed together.Failed: [] Passed: []
7. Stack and elbows clean inside, and rain cap clean outside.Failed: [] Passed: []
8. Check for rusting and damage/leaking/all codes properly met. ...Don't know: [] Failed: [] Passed: []

Oil Pumping System

9. Make sure the oil suction lines are hooked up correctly (especially on meter pump):
 - suction line--flared copper only—minimum size ½" o.d. (no o-rings, swivels, unions, quick couplers, splices at top of tank, or Teflon tape allowed (use Permatex)Failed: [] Passed: []
 - short suction line (no more than 6 feet lift).Failed: [] Passed: []
10. Check for proper oil line size (pressure side), must be large enough for the distance.
See Meter Pump Manual. Failed:[] Passed: []
11. Oil pressure line should go uphill all the way, so that air will bleed out properly. Failed: [] Passed: []
(If you must go downhill to get to your furnace/burner, call us. This is very important. If failed, call us at: 330-674-0142.)

Electrical Installation Safety Inspection

12. Use proper breaker size. Proper size is: [fill in: _____ amps]. Check with an electrician for proper size wires and breaker, especially on units with squirrel cage blower (high amperage motors). Be sure unit is properly grounded.Failed: [] Passed: []
13. Use proper size feed wire for the distance. Feed wire size is:[fill in: _____] gauge wire. Distance is: [fill in: _____ feet]Failed: [] Passed: []
14. Remove incoming "temporary purple power tail" and power heater with circuit breaker power. Hook wires up the same as it was hooked up when you got the heater (disconnect and reconnect one wire at a time). Or see diagram.Failed: [] Passed: []
 - Do not connect burner feed electrical wire to circuit breaker wire. This by-passes overheat switches, and is dangerous. In the event of fan failure, it will never shut flame off, and unit will get red hot when unattended!!! Warning, this is a recipe for a shop fire.
 - Do not "hot wire" burner feed wire. It must first go through the overheat circuit safety shutdown switches before it goes to feed burner with power.
15. Remove outgoing " temporary orange pump tail" and reconnect wires going out to pump assembly on tank. Disconnect & reconnect one wire at a time.Failed: [] Passed: []
16. Never power heater via the pump circuit. Doing so will bypass over-heat circuit. Do not bypass; very dangerous.Failed: [] Passed: []
17. Start burner flame, then verify unit blower or fan comes on after first 3-5 minutes of flame running time. If not, call us at: 330-674-0142.Failed: [] Passed: []
18. Run heater for 15-20 minutes continuously. Verify that the ignition controller does not trip red button on automatic safety shutdown. This is to see if the electric eye is working properly. If control trips red button, clean electric eye or call us. Do not bypass.Failed: [] Passed: []

19. Check draft inducer motor cond.: full speed/noisy bearings.N/A.: [] Failed:[] Passed: []
20. Check for over-the-fire draft when heater is running.Failed: [] Passed: []
21. Check for clean exhaust emissions/exhaust leaksFailed: [] Passed: []
22. Check for sufficient heat output/excessive noiseFailed: [] Passed: []
23. Check total amperage draw when unit is running. [fill in: _____ amps]. Failed: [] Passed: []
24. Check pump for visible leaks and pressure or vacuum problems.Failed: [] Passed: []
25. Check for plugged filters on suction side of pump after running 5 - 20 min. Failed: [] Passed: []
26. Check for proper flame length after heater has been running for 30 minutes. Approximate length is 1-2 feet, depending on the size of your heater.Failed: [] Passed: []
27. Check to make sure heater does not over-heat. Outlet louver air temperature must not exceed 200° or flame will cycle off and on. If it does, call us, at 330-674-0142.Failed: [] Passed: []
28. After running heater for 30 min, and while unit blower or fan is still running, check to see that thermostat on/off command will stop and re-fire flame repeatedly.Failed: [] Passed: []
29. While fan is still running, can you still turn the thermostat down to make flame and pump shut off? If not, unit over-heat switches etc. have somehow been by-passed. Call us at: 330-674-0142.Failed: [] Passed: []
30. Does oil pump run 24/7, even with no flame? If so, it is not wired properly and is dangerous. Call us at: 330-674-0142.Failed: [] Passed: []
31. After unit cools down for 20 minutes, but with the flame off, flip pump switch to "prime position" to run only the pump and get oil pressure at oil gauges at burner. Oil should not leak into fire chamber. Check inside chamber with spotlight. If it leaks oil into the chamber, the solenoid is either not working properly, or you may have dirt in it. Call us at: 330-674-0142 as this is dangerous.Failed: [] Passed: []
32. Be sure installation meets all applicable codes (electrical/stack system/oil storage and hook-up)Failed: [] Passed: []

Central Ohio Heaters, Ltd. also recommends that you get your unit/installation installed or inspected by a licensed heating contractor to make sure installation is safe and all codes are met etc.

Firm Name: _____ **License Number:** _____

Inspected by: X Print: _____ **X Sign:** _____ **Date:** _____

Sign Here if Customer declines professional inspection, and does his own inspection.

Inspected by: X Print: _____ **X Sign:** _____ **Date:** _____

Central Ohio Heaters, Ltd. also recommends that you get your unit inspected yearly by a licensed, experienced, waste oil furnace technician to make sure unit is safe, and all codes are met etc.

Customer's Name: _____

Address: _____

Phone Number: _____

To complete your warranty registration, please return to:

Central Ohio Heaters, Ltd.
7225 CR 68
Millersburg, OH 44654