

26-POINT HEATING SYSTEM CHECKUP

TASK	RATIONALE	PASS	FAIL	COMMENTS
1. Clean and Check Gas Burners	To ensure smooth ignition, burner flames are observed for proper height, color and alignment of burning	☐	☐	
2. Clean and Check Pilot and Pilot Tube (if applicable)	The pilot flame needs to be checked to make sure that it is not abnormally large or small. If too large, it wastes gas and makes the system dirty. Too small, and it can affect the system start-up, causing a no-heat condition	☐	☐	
3. Check Flame Baffle (or Ribbons)	The flame baffle or ribbon spreads the flame evenly across the entire heat exchanger length. If misaligned, plugged with rust and dirt, or cracked, it improperly spreads the flame, creating hot spots in the heat exchanger, which can cause sooting, or even cracks in the metal. It also takes longer to heat the home, because it takes longer to heat up the furnace	☐	☐	
4. Set Manifold Gas Pressure	Proper pressure is required to control fuel input to the furnace burners. If too low, the safety equipment does not operate properly, and it also takes too long to heat the home. If too high, it can damage the equipment.	☐	☐	
5. Check Gas Input	Proper pressure is required to control fuel input to the furnace burners. If too low, the safety equipment does not operate properly, and it also takes too long to heat the home. If too high, it can damage the equipment.	☐	☐	
6. Set Burner Air Adjustment	It is important to precisely mix air and natural gas before igniting it. If the mixture is too heavy, it creates a poor burning situation and could create carbon monoxide.	☐	☐	
7. Check Fan Control	Through normal usage, the fan control can get out of mechanical adjustment by as much as 30 degrees. Check to assure that the fan comes on and goes off at predetermined temperatures in order to deliver the proper temperature of air into the home.	☐	☐	
8. Inspect Gas Valve and Piping	Check the gas valve and piping for visual signs of corrosion and leaks. Listen for abnormal noises such as chattering and gas flow restriction. Also check for the odor of leaking gas.	☐	☐	
9. Check Pilot Safety / Thermocouple / Spark Ignition	This safety device senses the loss of pilot flame and shuts down the main burners so that natural gas is not coming into the home without some way of igniting it properly.	☐	☐	
10. Inspect Combustion Chamber	To assure proper fuel combustion and avoid the possibility of creating carbon monoxide in the house, check for signs of sooting, cracks and deformity within the combustion chamber.	☐	☐	
11. Check Temperature Rise	By checking the actual degrees of temperature rise throughout your system, technician can determine if the furnace is heating the home like it is supposed to be heated. If the temperature rise is too high, it causes the furnace to bump the high-limit switch of the furnace, and can stress the heat exchanger. If too low, condensation could form rust in the furnace.	☐	☐	
12. Check Blower Motor (belt and wires, if applicable)	Proper maintenance, adjustment, alignment, and cleanliness of the blower and components are necessary for adequate airflow.	☐	☐	
13. Lubricate Blower and Bearings (some are permanently lubricated)	Lubrication of the blower in the furnace reduces friction. Thus, the blower will operate both more quietly and inexpensively. It will also extend the blower's life by keeping it running cooler.	☐	☐	

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14. Check Wiring Assembly	Loose connections cause improper voltage to various components, making them either inoperative or causing eventual failure.	☐	☐	
15. Check Air Filtration System	A dirty filter can reduce the airflow over the heat exchangers resulting in inadequate heating of the home, or it may shorten the life of furnace components. Dirty air filters are a major cause of increased utility bills, and expensive furnace repairs.	☐	☐	
16. Check Equipment and Ventilation Space	Furnace location should be visually checked to ensure clearance for servicing and clearance from combustible materials. The furnace closet or area should not be used for storage.	☐	☐	
17. Check Flue and Venting	Necessary to assure proper fuel draft and also to identify flue obstructions. This condition could cause dangerous carbon monoxide to leak back into the home, presenting a health risk to the occupants.	☐	☐	
18. Check Limit Control	The principal control in the furnace to prevent overheating and possible damage to the unit and the structure it's located in. Failed limit controls can cause house fires.	☐	☐	
19. Check Heat Anticipator	Located in the thermostat, the heat anticipator ensures that the furnace will perform proper cycling on and off during the normal heating day.	☐	☐	
20. Check Thermostat Contacts	An improperly working thermostat will call for more or less heating than desired. The former will waste energy and money, and the latter will cause discomfort.	☐	☐	
21. Check Voltage and Amperage on Motors	Improper voltage and amperage can significantly reduce the life of the blower and inducer motors.	☐	☐	
22. Check Safety Interlock Switch (where provided by code)	Essential for proper protection of anyone opening the bottom panel of the furnace.	☐	☐	
23. Do Carbon Monoxide Test	Carbon monoxide, though potentially very hazardous to your health, is tasteless, colorless and odorless. Homeowners are usually not aware that carbon monoxide is present in their homes until this test is performed.	☐	☐	
24. Duct Inspection	Dirt buildup in the heating and cooling ductwork limits air movement and can severely choke the system. Most secondary heat exchangers have only 1/16" of air clearance and can easily become plugged with dirt. Dirty air-conditioning coils drastically affect the efficiency of the cooling system and shorten system life.	☐	☐	
25. Make Final Operation Check	Check all of work to make certain that everything is working just the way it should.	☐	☐	
26. Advise Customer of Results of Check	It is important to advise owner of the current condition of the heating and cooling system.	☐	☐	