

The Furnace Inspection

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After 50-60 years development, the technology of forced air furnace is fairly mature. It is not unusual to see the 30-40 year-old furnaces running in good condition but 20-30 years is the normal life expectation. In order to have the furnaces last longer, the annual inspection and maintenance are necessary. A few simple tips will be introduced here.



The first part to be inspected is vent and the connection of draft hood. In addition, the existence of combustible supply air inlet is essential. Sometimes, the louver door of the mechanical room is accepted instead of the air inlet. The properly installed above components are the prerequisite of the regular combustion and the safety. Also, because the vents of furnace and hot water tank always manifold together. It is important to avoid sharp turn which could cause vent difficulty. Secondly, normally the BTU input of furnace is larger than that of HWT, plus some of them with power vent. It is necessary to manifold HWT vent above the furnace vent. Otherwise, the stoke vent would happen on HWT. The insufficient combustion and the emergence of CO would be a life threatening. At the same time, it is the inspection of burner. If there is scorch around opening, it indicated back draft something wrong with the vent system. The flame should be stable and burning thoroughly. Any jumping or yellow flame should be inspected further by contractors. In the worst scenario, the change of new parts even facility is on the way.

The air temperature rise over the furnace is an indicator of the furnace performance. The normal temp difference between hot air register and return plenum is 70-100 F. The high efficiency furnace is 35-70 F. If it is too high, it is usually not enough circulated air caused by clogged filter which is supposed to change every month. This could lead the metal parts fatigue and reduce the life expectation prematurely. The low temp gap is not always seen. The



possibility is insufficient combustion. This is serious life safety hazard. We expect the smoke detector and CO monitor to response at this moment, which gives an alert to home inhabitants.

The life of circulation fan is not as long as the whole facility. The aged and cracked belts are normal. These have to be observing regularly. Annual clean and vacuum duct and opening is required to keep environment healthy. In the old buildings, the possible asbestos contained material is normal on heating duct, which may cause your concern. Nevertheless, regular maintenance is important the keep the furnace running longer & reduce the cost of changing

facility.