

Case Study

Symptoms of Carbon Monoxide in Wall Furnace

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Date: December 28, 2005
Job Site: Laguna Beach, CA
Equipment: Wall Furnace
Make: UTL
Model: UTL
Serial: UTL

Problem: On December 27, 2005 at 8:00 PM the Tenant who has resided at this residence for over 9 yrs. had her Fire / CO detector alarm go off with a verbal statement "Warning! high carbon monoxide". She shut down the wall furnace and opened the front door and called her Landlord to report this problem.

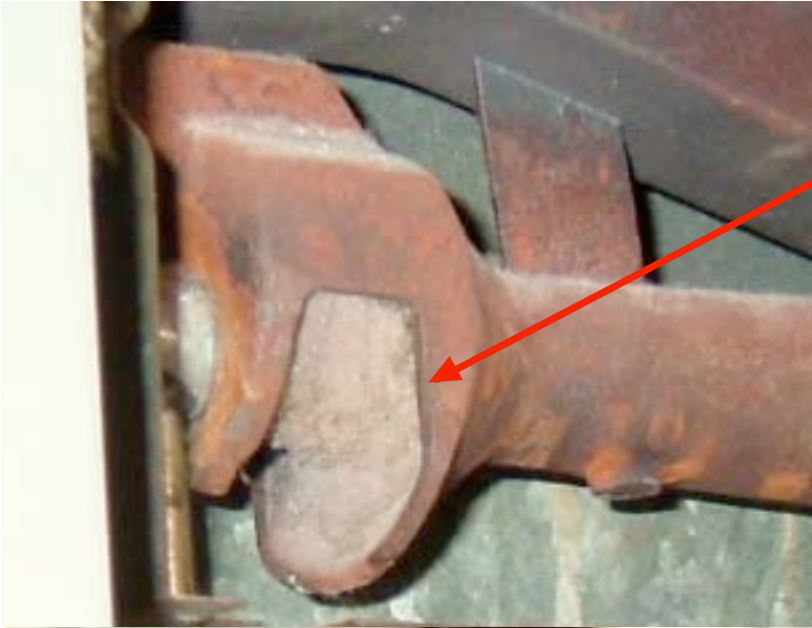
On December 28, 2005 I responded to the residence and safety checked this wall furnace. Needless to say this was an extreme example of a gas appliance burning badly and making high levels of CO. This report outlines the problems I observed and how this alarm saved this Tenants life.



Close up view of burner assembly. See anything wrong?



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Note the carpet lint plugging up the primary air intake of the main burner.



The flames on the left side of the burner disappears and then reappears.



The inside of the heat exchanger is loaded with black carbon.

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My CO detector can only read as high as 2,000 PPM. It was quickly pegged when I tested the flue gases (reads 1 if reading is higher than 2K PPM).



The flue cap shows black carbon a symptom of high levels of CO. Fortunately this cap did not fail and block more of this deadly flue gas from getting out of the residence.

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Same residence, example of what someone did to attempt to stop the rain from entering the vent pipe. This water heater vent pipe was basically blocked because this older leftover draft hood from an old water heater was placed over the pipe.

Could you imagine if this had been done to this faulty wall furnace and the vent gases could not get out?

Note the newer installed roof.



This item was removed and the proper vent rain cap was installed.

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Fire / CO Detector that saved this tenant from deadly high levels of CO. It was disabled until I got to the residence. We reinstalled it back on the wall.

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Can you see the darkened paint in this photo?

