Exhaust temp with draft kit

Posted by drysun - 03 Dec 2012 22:44

So I got the draft kit from Sparta and installed it. Waiting on the replacement auger as that was back ordered. I lit it last night and ran pellets through on a setting of 2 and the exhaust blower seemed extremely hot. I pulled out an inexpensive IR thermometer and the blower was reading 300-310F. Does that seem right? I just cleaned out the stove again today (weather got into mid 60s) and closed down the air screw to the recommended 7/32 or 2 1/2 turns from full closed and will try again, but that exhaust temperature seemed high to me and I thought I would check if this is valid.

Also, I tried turning it to 1 before I went to sleep and when I woke up, the exhaust temp was ~200F which might have been too cold as I noticed some gummy residue on the heat exchange tubes. I guess I'll have to see if closing the air screw some helps either tonight or tomorrow whenever I relight.

Anyway, I'm curious what temps should be as I'm afraid turning it up to a high feed rate later in the winter the exhaust will be a crazy high temperature.

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Re: Exhaust temp with draft kit

Posted by tfgrower - 04 Dec 2012 00:48

Hi drysun, I measure my stack temp about 18 inches above exhaust hole on stove and get 225* with auger setting of 3-4. There could be a differance in fans, I have Nesco. 200 sounds good but never have I had anything gummy in the stove. I have had a thin layer of soot and ashes, never anything with moisture or resin which gum would require. The only thing that I could think of that could cause gum is yellow pine pellets which would be softwould pellets. What brand are you using.

Did you measure temp at the fan connection?

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Re: Exhaust temp with draft kit

Posted by command_z - 04 Dec 2012 02:31

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tfgrower wrote:

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+1

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Re: Exhaust temp with draft kit
Posted by drysun - 05 Dec 2012 19:40

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tfgrower wrote:

The only thing that I could think of that could cause gum is yellow pine pellets which would be softwould pellets. What brand are you using.

Did you measure temp at the fan connection?

Nation's Choice is the name, looks like their website is ifpcorp.com. Fortunately I don't have a lot of it (got several brands to try them out) and it seems to have quite a bit of dust and irregular lengths. Definitely not one I would get again just based on those two factors alone.

The shiny look on the heat tubes I've seen before when burning corn once and I think it had something to do with the air/fuel mix, unfortunately I can't remember if it was too much air or too little. I'm playing with the air screw, but having to wait several hours to see the result as it is a slow process. Plus some soot got onto the top of the window (not black, more like a light brown color) so the air screw likely still needs adjustment from the 2 1/2 from closed position.

I guess the multifuel auger (full corkscrew) just makes it feed more pellets at the same knob setting? I got it in the mail, but I probably won't swap it until I can find my second vise grip and next shutdown/cleaning, but I'm not sure how much a difference it will make. I've only really been burning at one (warmish winter so far for some reason) and the flame is energetic but small, rarely tall enough to come out of the fire box. Example pic at here

I will say at least so far, with 10mph winds (gusts up to 20mph) today, I don't think any soot is going up the feed chute.

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Re: Exhaust temp with draft kit
Posted by tfgrower - 05 Dec 2012 21:29

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drysun wrote:

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I get a dirtier window at low settings and can't explain it. #1 is a dribble

of pellets especially if they are long so flame will be small. 1.25 is all I can run without losing my fire. Look for something about a blend on bag. If they are hardwood they will say all hardwood or hardwood blend.The blend will have some softwood. I haven't used that pellet.

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Re: Exhaust temp with draft kit

Posted by command_z - 06 Dec 2012 05:33

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drysun wrote:

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On a popular wood pellet review site they get 3.5 stars out of 6. Some people's stoves burn them well, others have high ash build up, lazy flame, low heat. I've never used them.

Drysun I see you're in Maryland. Made my first visit to Maryland last summer. Boy was I wrong with my pre-concieved idea of what that state is like. It is beautiful there! Would love to visit again!

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Re: Exhaust temp with draft kit
Posted by tfgrower - 06 Dec 2012 14:09

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command_z Did you get your stove working the way you want it?

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Re: Exhaust temp with draft kit
Posted by command_z - 06 Dec 2012 22:09

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oh yes...works great now. I had the air just a little too high. Burns as low as 1 and roars on 10. What more can a guy ask for?

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Re: Exhaust temp with draft kit
Posted by tfgrower - 06 Dec 2012 22:51

Absolutly nuttin

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Re: Exhaust temp with draft kit
Posted by command_z - 06 Dec 2012 23:41

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thanks for helping me get there

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