

## Job #4996618

## **Masonry Fireplace 1**

## **Customer Name**

John Smith

## **Location Address**

123 Fake Street, La Plata, MD 20646 USA

## DNU

Do not use the fireplace. The flue and chimney system are not capable of containing the byproducts of combustion.

"All flue tiles vertically cracked due to chimney fire. Extensive glazed creosote buildup within the flue lining that will need to be chemically removed before any repairs can be made."

## Appliance Section 1: If an Insert is in the fireplace

1

Picture of appliance from across the room.



#### **1A**

Is there an appliance installed? If Not skip to section 3

No, skip to section 3

#### 1A Cont.

Type of appliance:

#### **1B**

Manufacturer Name:

-

# 1B Cont. Model Number: 1B Cont. Serial Number: **1C** Any damage to the unit (Wood Only)? (Face, door, baffle, Heat Exchanger, damper or flue collar) **1G** Meets manufacturer recommended clearances? 11 Catalyst Check for Condition? 1J Does the appliance meet manufactures hearth extension requirements? Without a manual being present we 18" from the door **Gas Log Section 2** 2A Is there a gas log installed? **2B** Is the gas line entry sealed? 2C Is the stop cock 6" from the face of the fireplace? 2D Is there a damper stop in place 2E LP or NG 2F

If a Log lighter is installed, Does is meet manufacturer instructions?

## **Hearth Extension Section 3**

#### **3A**

If the firebox opening is greater than 864 square inches does the hearth extension meet required clearances. (For refrence NFPA 211 11.3.4)



3B

If the firebox opening is 863 Square inches or less does the hearth extension meet required clearances. (For reference see NFPA 211 11.3.3)

✓ Not Applicable

## Firebox & Face Area Section 4

## **4A**

What is the fireplace faced with?



## 4B

What material is the fireplace interior constructed of?





## 4C

Does the grate in the interior of the firebox appear to be in operating condition?

Yes

## 4D

Is there an outside air inlet for this masonry fireplace?

No

## 4E

Is the firebox sealed to the face of the fireplace?

✓ No, This should be tightly sealed to the firebox opening. Not being sealed will allow heat and combustion byproducts to escape the system. This needs to be sealed up before the fireplace is used again.









4F Firebox



## 4G

Is there any creosote in the firebox?



#### **4H**

Viewed from the hearth is there any readily visible deterioration of the firebox?

Deteriorated/ missing mortar joints: From either fatigue or water entry. Firebox should be rebuilt before use of the appliance.

"Entire joint around heatform needs to be replaced, firebox transition joint into hearth extension needs to be replaced."

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Does the firebox have a depth of at least 20"?

Yes

### 4J

Is there fireplace smoke staining above the fireplace opening?

Yes: Smoke stains in this area indicate that the fireplace is not performing properly and allowing the byproducts of combustion to enter the home. This area should be completely clean.



#### 4K

Are the clearances to any combustible trim, including the mantle, appropriate? (6" from the sides of the fireplace opening. 6" from the top of the opening if less than 1.5" in thickness, or 12" from the top of the opening if greater than 1.5" in thickness)

Yes at this time

#### 4L

Is there adequate clearances to combustibles, such as rugs, blankets, wreaths?

Yes

#### **4M**

Is there an ash dump door and does it operate properly?

No

### **4N**

Are there Glass Doors installed and if so are they in good working order?

Ν/Δ

## **Throat & Smoke Chamber Section 5:**

## 5

## Smoke Chamber



## **5A**

Does the throat of the fireplace exceed 8" and is it well filled?

✓ Well Filled: Brick corbels are exposed and collecting creosote in these area. They need to be thoroughly cleaned with chemicals and filled in with a refractory mortar.

## 5B

Does the damper open, close and seal properly?

Yes

## 5C

What type of damper is installed?



#### 5D

Is the smoke shelf filled in with no drop off behind the firebox.

Yes

#### 5E

Is the smoke chamber parged

No, this area should be completely smooth and parged over with refractory mortar. This area serves as a funnel for the flue to convey the by products of combustion up into the flue lining. The extra turbulence in the smoke chamber will cause increased heat transfer and poor draft. If left untreated this can lead to unwanted heat transfer that could potentially result in an unwanted fire. See 2015 IRC R1001.8 & 2016 NFPA 211 Section 11.2.1.13

#### 5F

Is there any creosote in the smoke chamber?

✓ Glazed Creosote is present and highly flammable. This should be removed before use of the appliance.

#### 5G

Is the smoke chamber the correct proportion and angle?



#### **5H**

Is the very 1st tile that starts at the top of the smoke chamber sealed properly.

- No, This is not properly sealed and allows smoke to go around to the outside of the tile
- ✓ Not properly supported on all four sides.

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For appliances on direct connects: Is there a sealed door that allows inspection of the flue with out removing the block off plate?

✓ N/A

## Flue Lining Section 6:

#### **6A**

Does the flue lining appear to obstructed?

No

#### **6B**

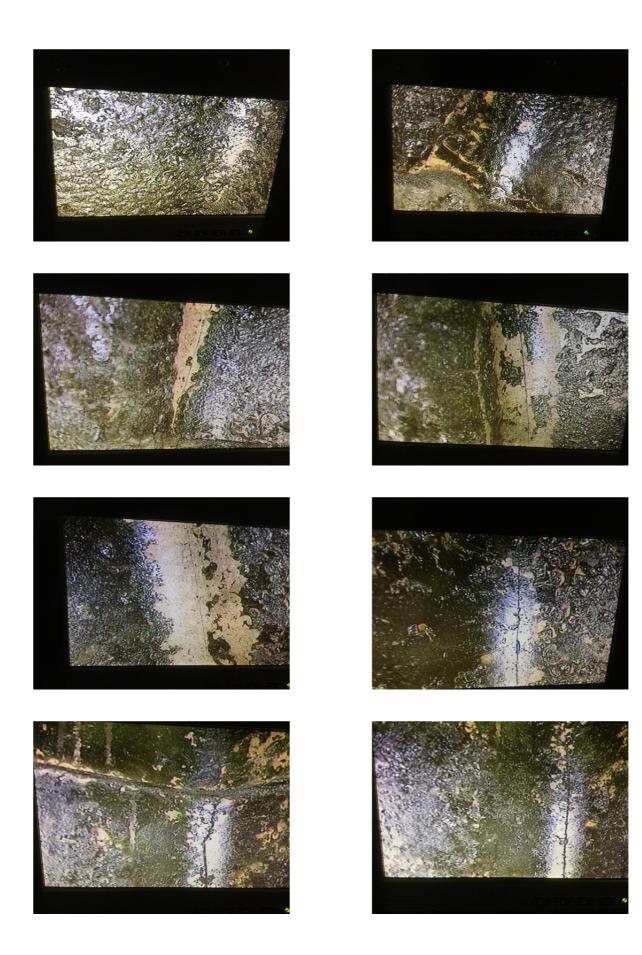
Does the flue lining have any defects?

All the tiles cracked: This was most likely caused by a sudden occurrence chimney fire. The flue lining should be replaced before use. Cracks will expand when heated and allow the combustion byproducts to escape the chimney.









#### 6C

What is the condition of the mortar joints?

Missing Mortar Joints: These are supposed to be well filled with refractory cement. Missing mortar allows the combustion flue gases to escape the chimney. This will cause loss of performance in the venting system and appliance, in the form of decreased draft. Decreased draft can lead to more creosote formation in the flue lining. Often creosote will build up behind the tiles and present a fire hazard, which cannot be cleaned. (For reference see NFPA 211 7.2.10)



#### 6D

Level of buildup in the flue lining?

✓ Heavily Glazed: This chimney is at high risk for a chimney fire. A creosote removal treatment should be done before use

#### 6E

For inserts on direct connects: Is the cross sectional area of the flue less than 3 times the size of the flue collar outlet of the appliance?

✓ N/A

## 6F

Is the flue properly sized to the firebox opening? (For Reference see NFPA 211 7.1.11)

Yes it is properly sized.

## Viewed from the roof Section 7:

#### 7

Roof line up of the chimney.









## **7A**

Any trees over hanging the chimney?

✓ Not at this time

## 7B

What is the condition of the chimney cap?

Intact with no problems

## **7C**

Is there at least 4 inches in between the tiles that would indicate the presence of a divider wall(wythe) in between the flues?

Not 4" present: This does not meet codes and standards. When there is no divider wall between the flues this will allow for flue gases to to cross over into the adjoining flue. Sometimes this will allow flue gases to come back into the home. See 2015 IRC section R1003.13 & 2016 NFPA 211 Section 7.2.14.2.

#### **7**D

Does the top portion of the chimney show any signs of water entry?

✓ Not at this time

#### **7E**

Are there any visible structural deterioration defects of the top portion of the chimney?



#### 7F

Does the flashing appear in good condition, Is it installed properly:

Yes, Flashing is properly installed

#### **7G**

Does the crown or wash appear free from defects?

Expansion Joint: Lack of an expansion joint has cause the flue tile to press against the crown & crack it
 Overhanging edge: The top of the chimney does not meet Brick Institute of America standards by having

at least a 1.5" overhanging edge to shed water off the chimney

#### **7H**

Does the chimney come through the roof at least 36 inches? (Measured from the highest part of the roof to the top of the flue tile).

Yes

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Is the chimney at least 2' higher than anything within a 10 foot radius? (Measured from the top of the flue tile in a 360 degree circle)

Yes

#### **7**J

Is the chimney 30" or more parallel to the roof line?



## **Attic Access Section 8:**

#### **8A**

Can the attic be accessed with harm to the technician or the homeowners property?

No

#### **8B**

Does the fireplace structure have at least a 2" clearance to combustible?

N/A

#### 8C

Does the chimney have any other deficiencies?

N/A

#### 8D

Any evidence of efflorescence or water damage?

N/A

## **Viewed from the Ground Section 9:**

#### 9

Base of the chimney.

#### 9A

Are there any gutters directed toward the chimney? Gutters directed at the chimney will cause water entry.

#### 9B

Is there a cleanout door and does it seal securely?

#### 9C

Any combustibles near the clean out door?

Chimney secure to the house structure, any signs of settlement or pulling away from the house?  9E Are mortar joints, missing, loose or eroded, well filled & correct thickness?  9F Are there vines or excessive plant growth on the masonry?  9G Any evidence of water entry or damage to the lower portion of the chimney?  9H Are there any visible structural deterioration defects to the base of the chimney and shoulder area?
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Technician notes or summary
Technician notes or summary  Advised customer do not use, estimate for repairs given today.
Signature Box
The above list gives an indication of some items included in an inspection to the extent that they are readily accessible visible. It should not be considered all inclusive. The evaluation does not include areas that were obstructed or inaccessible at the time of evaluation. It does not imply that the system was built to code or there are proper clearances to combustibles. This is not a certification of fire worthiness or safety. Any recommendations by the technician should be completed before the appliance is  I have read this form and now understand which areas of my wood burning system appear to be satisfactory and which areas are not satisfactory.