

# William & Jo Ann Pullen.

# 2990 Club Dr Los Angeles 90064

Inspector: Chris Richeson

June 19, 2024.

Chimney Check Professionals, LLC 2315 W. Burbank Blvd., Burbank, CA 91506 818-951-7550



2990 Club Dr Los Angeles 90064

CLIENT PRESENT: The client was not present during the inspection. The client is the current owner DATE OF INSPECTION: June 19, 2024.

Use of this report asserts that the Inspection Contract has been accepted and agreed to by the client (whether or not it has been signed) and that the limitations section has been read, understood and also agreed.

The goal of this inspection is to render an opinion as to the condition of the fireplace/s and chimney/s, based on available access. No destructive testing is performed.

<u>This is not a code compliance inspection</u>. The inspectors opinion may be that a particular "violation" may not require a repair for the safe operation of the system/s.

The information contained within this report is for the sole benefit of the client indicated in this report and its use is not transferable.



The following recommendations have been exclusively prepared for: William & Jo Ann Pullen. at 2990 Club Dr Los Angeles 90064

# RECOMMENDATIONS

The system should not be operated. The city and fire safety standards for a system designed for wood burning are the same whether the system is used with gas logs or solid fuel.

**POTENTIAL COSTS:** \$25,000 to \$35,000 could be used (not a guarantee) as a gauge for repair costs, or more. This is based on my ability to inspect and the limitations of this inspection.

NOTE: Potential cost/s are given as a courtesy and are not guarantees of costs. This is given as a sort of gauge and is not intended to be relied upon. Items not specifically part of the fireplace system/s are excluded from the potential costs

POTENTIAL COSTS EXCLUSIONS: Specific exclusions include (but are not limited to) the following:

Roof or flashing repairs. All corrections that affect cosmetics, such as drywall repairs, painting, modifications to mantels, surrounds, hearth extensions and exterior surfaces are all excluded from the above potential costs. Drainage or Moisture related issues

#### FIREPLACE UNIT CHIMNEY

#### --MASONRY CHIMNEY--

It is my opinion that the chimney should be removed to the smoke chamber/throat area and then be reconstructed (to meet current city standards) with a fabricated metal chimney system. This type of "repair" generally will require the construction of a chase system for the metal chimney to pass through and there will likely be choices of exterior finishes. Stucco is generally less expensive than other surfaces. This report assumes that stucco is to be used (other choices will likely be significantly more costly).

## --SMOKE CHAMBER--

It is recommended that the smoke chamber be parge coated (a minimum 5/8 layer of fire rated mortar be applied to the smoke chamber and areas above the firebox) and any gaps, voids or deteriorated areas be smooth coated and filled with the same fire rated material.

#### --ASH DUMP--

The current exterior ash dump "door" should be replaced with an appropriate door.

#### FIREPLACE

#### --DAMPER--

It is advised to install an approved clamp on the damper to prevent the damper from closing (the damper should be fixed in the fully open position).

#### --MASONRY FIREPLACE--

The breast surfaces (and any surfaces directly above the firebox) should be coated with a fire rated mortar coating, sealing all gaps and voids.

All gaps and deteriorated areas above and within the firebox should be sealed with an approved fire rated material.

#### --MASONRY FIREPLACE DRAFTING--

All the repairs to the system should be performed and then the fireplace operated during differing climate conditions to determine whether or not a smoke guard is needed to help prevent poor drafting.

#### --SCREEN--

A proper screen should be placed or installed at the firebox opening.

#### --SURROUND--

It is advised to seal the openings or gaps where the "finish" surfaces meet the edges of the firebox opening.

#### --HEARTH EXTENSION--

The gap where the Hearth Extension meets the firebox should be sealed.

In my opinion it should be determined whether or not the support materials for the Hearth Extension are constructed of combustibles (such as wood, paper etc.) and corrected as is applicable.

# **ADDITIONAL**

**MAINTENANCE:** It is recommended that the system be fully evaluated and cleaned yearly (as is applicable), and after seismic activity

**FOLLOW-UP INSPECTION:** To help ensure that repairs have been appropriately completed a full evaluation should be performed by a qualified inspector, after all the recommended corrections have been completed.

**THREE BIDS:** It is recommended that three bids be obtained by qualified contractors before the end of inspection contingencies, to help ensure that the actual cost of repairs are fully known.

**RECOMMENDATIONS:** The above recommendations are given based on available access and ability to inspect. Recommendations that are given for roof, drainage, gas lines and any other components that are not specifically part of the fireplace system are given as a courtesy and does not assert an inspection of that item either in part or full.

**POTENTIAL COSTS:** Potential costs given do not include repairs needed that are not specifically part of the fireplace/chimney system/s, such as roof repairs, painting, mantle/surround modifications, finish surfaces, tree trimming, moisture related issues, drainage and etc. Any potential costs given assume that the repairs will be performed by a qualified contractor.

Potential costs are based on discoveries at the time of inspection (of accessible areas only) and cannot foresee additional repairs needed that are determined after further evaluation, obtained access or during repairs, such as in the case where chase or attic areas were not accessed (it can be expected that the final cost will increase from what was expected).

# DIAGRAM



# FIREPLACE UNIT CHIMNEY



#### MASONRY CHIMNEY TYPE: The chimney is made of masonry.





#### **RELATIONSHIP TO THE STRUCTURE:**

This is a one story fireplace/chimney system. This chimney is taller than typical.

#### SPARK ARRESTER/CAP:

**FIRE SAFETY RISK.** The chimney is not equipped with a proper spark arrester/rain cap system. The current spark arrester is a flat screen type with no rain cap. This was allowed in the past but current standards dictate a rain cap incorporated with a 3 dimensional spark arrester system.



# MASONRY CHIMNEY CONDITION:



**STRUCTURAL SAFETY RISK.** The chimney is damaged. It has significant movement when pressure is applied.

# FLUE TYPE:

The interior of the chimney is unlined brick.



#### MASONRY FLUE:



**FIRE SAFETY RISK.** There is deteriorated/missing grouting between the brick within the flue system. This is considered a fire safety concern and is a violation of masonry flue liner installation standards.

## SMOKE CHAMBER CONDITION:

**FIRE SAFETY RISK.** The smoke chamber area has general wear and deterioration noted to grouting between the brick surfaces. There are gaps and "voids" noted as well to the surfaces. This is considered a potential fire safety concern.

## ROOF AND/OR FLASHINGS:

Roof and flashings are not part of this inspection. Any information that is given as a courtesy. Consult a qualified flashing or roofing specialist for more information with regards to water barriers and potential moisture intrusion issues.

#### ASH DUMP:

**FIRE SAFETY RISK.** The exterior ash dump door is not operable at this time.



# FIREPLACE



## **APPLIANCE TYPE:**

This is a masonry wood burning fireplace. This unit has a gas log set installed.



#### DAMPER:

**FIRE SAFETY RISK.** The fireplace has an "appliance" system and the damper was not modified to prevent it from closing, usually a simple clamp can be installed to meet this requirement. The damper should typically be "fixed" in the fully open position.



#### MASONRY FIREPLACE:

**FIRE SAFETY RISK.** The breast surfaces and areas above the firebox have wear and deterioration noted.

There are gaps noted along the firebox surfaces.





#### MASONRY FIREBOX ADDITIONAL:

The firebox walls have been painted. This prevents my ability to observe the firebox walls fully. I did not discover any significant issues at this time, with relation to the firebox walls.

Technically, the firebox walls, if painted, are supposed to be painted with a heat rated paint. It is beyond my inspection to determine whether or not this is the case.

# APPLIANCE:



## GAS LINE:

It is not part of this inspection to test for gas leaks nor to determine whether or not the gas line system has been installed correctly. Refer to a qualified plumber or the gas company for more information and/or further evaluation (this is fully outside our scope).

Determining whether or not the gas flow from the log lighter is adequate is beyond this inspection.

## GAS VALVE:

The gas valve is operated to determine whether or not gas exits the "log lighter". It is turned on and then off.



## LOG GRATE:

**PRESENT.** The grate is needed so that the fuel can be positioned appropriately within the firebox.



# SCREEN:

**FIRE SAFETY RISK.** There is no screen at the fireplace opening. This is needed for fire safety.



## SURROUND:

**FIRE SAFETY RISK.** There are gaps where the finish materials meet the firebox opening. Typically, there are not supposed to be any gaps between the finish materials and the firebox edges. Gaps can allow for heat and gases to pass into areas not intended for heat and combusted fuel.



### HEARTH EXTENSION:

**FIRE SAFETY RISK.** There is a gap where the hearth extension materials meet the firebox floor. This can allow for heat to pass within the gap.

It was not determined what the materials below the Hearth Extension finish are made of. Wood or other combustibles should not be used.





# **INSPECTION CONTRACT** CHIMNEY CHECK PROFESSIONALS, LLC

Client:	Date: \$
Address:	Fee: \$

**Chimney Inspection:** The Client requests a Level II examination of the existing chimney system(s) of the property. A Level II Chimney Inspection, per the National Fire Protection Association includes an examination of all accessible portions of the chimney exterior and interior including areas within accessible attics and crawl spaces.

**Clients Duty:** The Inspector shall provide a written and/or video report for the sole benefit of the Client. The Client agrees to examine the entire inspection report & video when received & shall promptly call the Inspector concerning any issue the client may have concerning the inspection report. The written report are the findings of the inspector as to the conditions existing on the day of the inspection. The Client shall not rely on any oral statement(s) made or allegedly made by the inspector. The Client agrees to indemnify, defend and hold harmless the inspector from any 3rd party claims arising from the unauthorized distribution of the inspection report & video.

**General Provisions:** Excluded from this inspection is any portion of the chimney flue system which is not accessible by camera. This inspection contract and examination do not constitute a warranty, guarantee or insurance policy of any kind whatsoever. It is agreed that any claim made by the client(s) shall be made in writing within 10 days of discovery and the inspector and/or the inspectors designated representative must be allowed to re-inspect and document conditions of the defect prior to making any repair, alteration or replacement to the claimed discrepancy, except in case of emergency. Failure to follow this procedure shall constitute a full and complete waiver of all claims arising from this contract. No legal action or dispute proceeding of any kind can be commenced against the Inspector or the Inspection Company and agents more than ONE YEAR from the date of the inspection. Time is a material term and condition to this contract. Client accepts this material provision.

**Mediation Binding Arbitration:** The parties stipulate to pre-litigation mandatory mediation through Alternative Dispute Resolution, Inc. (ADR), located in Century City, California. Each side is to share the costs equally. The mediator must be familiar with the chimney inspection industry and applicable civil code provisions. Should the mediation fail the parties stipulate to binding arbitration through ADR. The finding of the arbitrator is final and both sides stipulate to waive the right to appeal. Each side is entitled to discovery as if said case was filed in the Superior Court. The costs associated with mediation and binding arbitration are an item of cost to the prevailing party. The arbitrator is bound by California law and no other law can be applied.

**Prevailing Party Attorney Fees Clause:** Any action in law or equity the prevailing party is entitled to reasonable attorney and expert fees and costs by the arbitrator at the binding arbitration.

This contract shall be binding upon the undersigned parties and their heirs, successors and assigns. This agreement constitutes the entire agreement between the parties and may be modified only by a written agreement signed by all the parties. If this contract is executed on behalf of the Client by a third party, the person executing this contract expressly represents to the inspector that he/she has the full and complete authority to execute this contract on the Clients behalf and to fully and completely bind the Client to all the terms, conditions, limitations, exceptions and exclusions of this contract. The Client acknowledges that they have read understood and agreed voluntarily to all the terms, conditions and limitations of this contract and agrees to pay the fee listed above.

# LIMITATIONS AND SCOPE OF INSPECTION:

**CONCEALED AREAS:** There are areas of a house or system that cannot be accessed, such as areas between walls, within cavities (such as chase areas) and etc. A fireplace/chimney system has many inaccessible areas as well, such as cavities and spaces between walls. Our inspection and liability are limited to areas we are able to reasonably inspect during a limited time inspection.

**HIDDEN AREAS:** We can only inform you of the observable condition of the installation at the time of inspection. Areas not accessed are specifically excluded from this inspection. It is advised that access be obtained and that these areas be inspected before the system is used. Portions of the installation that are concealed within walls are specifically excluded from this inspection.

**GOAL:** Our goal is to identify observable material defects, areas of improper installation, wear, deterioration and damage that could affect the safety of the fireplace system/s. Fire and structural safety standards are high to help ensure safety in all cases. Our findings and recommendations are based on city and manufacturers standards.

**THIS IS NOT A WARRANTY:** This report is based on the observable condition of the system/s at the time of inspection. The term "Serviceable" is not a statement of how long a component will remain in that condition and is **NOT** a guarantee of code compliance.

**RIGHT OF INSPECTION IF A DISCREPANCY OR ERROR IS DISCOVERED:** Use of this report implies an agreement by the client to give Chimney Check Professionals, LLC the opportunity enter the property and make their own inspection of "said" deficiency or error. Use of this report also implies an agreement by the client to give any and all applicable specialists the opportunity to further evaluate or inspect the system as well. This opportunity must be given before repairs are made to the system, otherwise the client waves all rights to compensation.

**ARBITRATION:** Use of this report implies an agreement by the client that a binding arbitration will be the means to settle a dispute between Chimney Check Professionals, LLC (and any of its employees, affiliates or inspectors) and the client. The arbitrator to be mutually chosen by both sides. Failure to follow this agreement renders the offending side fully responsible for all reasonable legal fees for both sides and any due compensation to the other party.

# **DEFINITIONS OF TERMS:**

#### SERVICEABLE:

**SERVICEABLE:** It is the inspectors opinion that this item was found in a condition with no observable defects or limitations that would affect its operation adversely.

#### PRESENT:

**PRESENT:** The component or item indicated is "present" and in most cases determining its

condition during a limited time inspection is not possible. The item is not tested or is not fully tested for correct operation or adequacy, (such as sophisticated remotes, fan systems, gas valves, etc). No Representation as to its ability to fully perform is given. In some cases, the client will be directed to the appropriate specialist or source for further information as desired or required.

## **NEEDS ATTENTION:**

**NEEDS ATTENTION:** It is the inspectors opinion that this item should be brought to the clients attention and may be in need of repairs or maintenance and/or further investigation and may not be performing to its original standards, thereby being a potential risk of failure in the future (and added expense). The client should take appropriate action (as applicable) with the correct professional during the inspection period and prior to the close of escrow. During the repair process and/or further evaluation, additional problems may be found to be in need of repairs at additional costs.

#### FIRE SAFETY RISK:

**FIRE SAFETY RISK:** It is the inspectors opinion that this is item is either not meeting its original standards for fire safety, has been modified from its original and approved configuration or has been discovered to be a risk after original and "approved" installation. Due to this condition the fireplace system should not be operated until corrections have been performed by qualified professional/s. The client should take appropriate action with the correct professional during the inspection period and prior to the close of escrow. During the repair process and/or further evaluation, additional problems may be found to be in need of repairs at additional costs.

#### NOT ACCEPTABLE:

**NOT ACCEPTABLE:** It is the inspectors opinion that this item is either not capable of performing the job for which it was intended and/or is a significant threat to health and safety. This item is considered to be clearly outside the realm of acceptability by the inspector. The client should take appropriate action with the correct professional during the inspection period and prior to the close of escrow. During the repair process and/or further evaluation, additional problems may be found to be in need of repairs at additional costs.

## STRUCTURAL SAFETY RISK:

**STRUCTURAL SAFETY RISK:** It is the inspectors opinion that this is a structural concern and that the condition should be appropriately corrected by a qualified specialist (sometimes further evaluation by a structural engineer is recommended). The client should take appropriate action with the correct professional during the inspection period and prior to the close of escrow. During the repair process and/or further evaluation, additional problems may be found to be in need of repairs at additional costs.

#### SECURITY ALERT:

**SECURITY ALERT:** It is the inspectors opinion that this is a potential security issue. The inspector has made the client aware of this situation and it is then the clients responsibility to take appropriate action concerning the situation with the appropriate professional (and if applicable) during the inspection contingency period and prior to the close of escrow.

#### INFORMATIONAL NOTE;

**INFORMATIONAL NOTE:** This is information that the inspector feels is of value to the client and

may or may not be within the inspectors realm or scope. This can also be a disclaimer to make the client aware of the inspectors limitations so that the client may further evaluate the item or consult with the appropriate specialist as needed.

## ACCESSIBLE:

#### BASIC TERMS:

Accessible is defined as portions of the installation or components that are observable without dismantling of components or damage to the installation or surrounding areas (such as roof tiles). Accessible is also defined as portions of the installation that are observable with the use of reasonable access or without unnecessary risk to the inspector, such as high roofs or very steep roofs.

#### NOT ACCESSIBLE:

An area which is not accessible is an area which would require damage to the installation or surrounding areas, an area which is unsafe to access (such as a steep roof or crawl space) or an area which would require significant dismantling or unreasonable effort on the inspectors part to access.

#### CONCEALED AREAS:

Concealed areas are defined as any area which is beyond the inspectors "reach" without removal (or damage to) of a major component of the house, such as the inside of a wall, below roofing materials, within chase areas, crawl spaces or covered by finish materials.

#### LIMITED INSPECTION:

A general visual inspection is an inspection that does not utilize the use of sophisticated equipment, such as a video camera. This is also a very limited inspection which does not include the removal of chase covers or termination caps and may not include access to attics and crawl spaces. This inspection does not include the moving of personal or stored items for the inspection and may not include the use of a ladder.

## DETAILED VISUAL AND/OR VIDEO CAMERA INSPECTION:

A detailed inspection will typically include roof access if determined to be reasonably safe and the potential for damaging roof tiles does not seem apparent. Access to chase areas are attempted, if destructive testing is not needed and providing significant dismantling of components is not necessary. Attic and crawl space access will be attempted if the inspector determines additional information could be discovered and if these areas are reasonably accessible. The termination cap will be removed if possible without damage to the component and providing access is available. The use of video equipment (for the inside of the flue) will likely be used but is not always possible. Concealed areas are excluded from this inspection.

#### FIREPLACE DEFINITIONS:

**Anchors:** Anchors are straps of steel that are secured into the bond beam and are tied back to the floor joists, roof rafters or wall members. The anchors tie the chimney to the house, which may provide support in the event of wind or earthquake (\*1).

Ash Dump: The trap door on the floor of the inner hearth that leads to the ash pit (\*1).

Ash Pit: The ash pit is the space into which the ashes are dumped. It is a non-combustible storage

compartment behind or below the firebox, which helps keep the fireplace clean without having to carry ashes through the house (\*1).

**Bond Beam:** A bond beam is a member poured in the masonry at the support level of the chimney. The support level is usually at the floor and at the ceiling or roof line. It may also be above the roof line if the chimney is tall enough to require a supplementary support (\*1). A bond beam is a term also used for the connection or transition where a metal flue system meets the masonry portion of the structure (it can act as a connection unit).

**Chimney:** A shaft built to carry off smoke and products of combustion that extends from the top of the throat of the fireplace to the top or cap of the chimney (\*1).

**Chimney Breast:** The area above the lintel or opening and in front of the throat, also called the fireplace face (\*1).

**Chimney Cap:** Chimneys should always be designed with a sloping cap to prevent water from running down next to the flue lining and into the fireplace. The chimney cap also prohibits water from standing at the top and creating frost or moisture problems. The chimney cap prevents the brick and masonry of the chimney from becoming soaked from the top down. The chimney flue liners should project approximately two inches (51 mm) to four inches (102 mm) above the highest point of the chimney cap (\*1).

**Chimney Flue:** Smoke and combustion gases from the fire pass up the chimney inside the flue. Each fireplace should have an independent flue, entirely free from other openings or connections. A flue may be lined or unlined. An unlined chimney flue should be larger than a lined chimney flue. The size of the flue and height of the chimney above the roof are important to create the proper draft through the fireplace and to insure adequate burning of fuel and passage of smoke. It is important to obtain a positive and uniform draft over the full width of the fireplace. The flue lining should be supported on at least three sides by a ledge of projecting mortar, brick or masonry, finishing flush with the inside of the lining. Supporting masonry should not project past the inside of the lining (\*1).

**Chimney Hood:** A chimney hood is an extension or baffle on the top of the chimney or flue lining that diverts wind currents away from the chimney opening, prevents downdrafts and improves the draft of the chimney (\*1).

**Chimney Flue Lining:** Chimney flue linings are fire clay, terra cotta, concrete pumice or other approved material made to be installed inside a chimney. Liners begin at the top of a smoke chamber. Clay flue linings must conform to ASTM C-315. When chimney design requires the flues to angle, the flues should not slope more than 30 degrees from vertical (\*1).

**Chimney Top or Chimney Pot:** A chimney top is a clay or concrete extension to the flue that adds height and provides a decorative top to the chimney (\*1).

**Damper:** Dampers are required on all chimneys and should be placed at the forward part of the masonry fireplace, immediately in the back of the breast wall of the fireplace and in the throat of the firebox. They should be properly sized and extend the full width of the throat to regulate the draft and air passing from the firebox into the smoke chamber. The damper also reduces loss of heat up the chimney and can be closed when the fireplace is not in use. The damper can also be used to regulate the rate of burning in the firebox (\*1).

**Exhaust Fan:** An exhaust fan is a mechanical fan that increases the draft through the flue and prevents smoking and backdrafts (\*1).

**Fire Brick:** Fire brick is a hard-fired refractory brick that may line a firebox and is able to resist the heat of a fire. A fireplace lined with fire brick will help reduce the maintenance of the firebox (\*1).

**Firebox, Combustion Chamber or Firepot:** The chamber or area where the fire is built, is the firebox. It generally is built with fire brick laid with thin joints. The side walls are slanted slightly to radiate heat into the room. The rear wall is sloped or curved to provide an upward draft action into the throat above the firebox, so combustion gases may exit up the chimney (\*1).

**Fireplace Opening:** The fireplace opening is the area between the sides, the bottom and the lintel area. It is the opening into the firebox in which the fire is built. The area of the fireplace opening governs the flue size(\*1).

**Flashing:** Flashing is sheet metal between the chimney and the roof, ideally embedded into the chimney and under the roofing material to prevent rain from leaking between the roof and the chimney (\*1).

**Footing:** The footing should consist of concrete at least twelve inches (305 mm) thick and should extend at least six inches (152 mm) beyond the foundation walls on all sides (\*1). **Foundation:** The foundation of a chimney is usually made of masonry or poured concrete designed to support the weight of the chimney, resist frost action on the structure or any additional load imposed and to prevent the settling or tipping of the chimney. The foundation generally is unreinforced, with only the chimney reinforcing bars extending from it when required. Most codes require the foundation to be at least eight inches (203 mm) (\*1).

**Gas Log:** A gas log is a self-contained, free standing, open-flame, gas-burning appliance consisting of a metal frame or base supporting simulated logs and designed for installation only in a vented place (\*1).

**Hearth:** The hearth is the floor of the fireplace. There is both an inner hearth and an outer hearth. The inner hearth may be made of fire-resistant brick that holds the burning logs; the outer hearth may be of brick, tile or other noncombustible building products. It is supported on concrete or may be part of the concrete slab (\*1).

**Hearth (2):** "The hearth is the floor of the firebox and the area in front of it. It protects the wood floor or carpet of the room from sparks and ashes" (\*1, pg 37).

**Lintel:** The lintel is the member above the fireplace opening that supports the decorative face or breast plate of the fireplace. The lintel may be steel angle or may be reinforced masonry. In some designs it may be incorporated into the damper assembly (\*1).

**Mantel Shelf:** A mantel shelf is above the fireplace opening and is a flat surface that serves as a decorative device to hold ornaments. The mantel may be made of wood, masonry, marble or other material (\*1).

**Outside Air Inlet:** This is an energy conservation feature and is sometimes required for fireplaces located on an exterior wall. It is intended to reduce the amount of preheated room air used for combustion (\*1).

**Smoke Chamber:** The smoke chamber acts as a funnel to compress the smoke and gases from the fire so that they will squeeze into the chimney flue above. The smoke chamber is important for good draft action. It should be symmetrical in shape so that the draft pulls evenly on the fire in the firebox. A symmetrical smoke chamber prevents a fire from burning on one side or the other of the firebox, causing eccentric flame action. The smoke chamber should be centered with the flue directly above the fireplace and its walls should be sloped at the same angle to provide even draft from the firebox to the chimney. A smoke chamber also has a smoke shelf to catch soot and thus provides a cleaner fireplace (\*1).

**Smoke Guard**: A common term used for a flat metal strip installed at the upper edge (and usually flush with the outside surface) of the firebox opening for the purpose of preventing smoke entry into the living space through the firebox opening. It actually makes the firebox opening smaller which helps the flue system draft more appropriately.

**Smoke Shelf:** A smoke shelf is located at the bottom of the smoke chamber behind the damper and can collect soot and also gather any rain water that runs down the chimney. A smoke shelf improves draft conditions in a chimney and help eliminate downdrafts (\*1).

**Spark Arrester:** The spark arrester is a screen at the top of the flue that prevents sparks or other combustible material from blowing out the chimney and igniting brush, wooded areas and even roof tops. Spark arresters are recommended for all fireplaces and are required in brush, forest and national park areas and in many jurisdictions. The spark arrester is of corrosion resistant wire mesh with openings no larger than 1/2 inch square (162 mm) (\*1).

**Throat:** The throat is a slot-like opening directly above the firebox through which flames, smoke and combustion gases pass into the smoke chamber. It is usually fitted with a damper (\*1).