

# **Shawbury Wood Stove**

(Smoke Exempt)



This appliance is hot while in operation and retains its heat for a long period of time after use. Children, aged or infirm persons should be supervised at all times and should not be allowed to touch the hot working surfaces while in use or until the appliance has thoroughly cooled.

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with BS 8423:2002.

INSTALLATION AND OPERATING INSTRUCTIONS

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# **INSTALLATION & OPERATING INSTRUCTIONS**

NOTE: Please note that it is a legal requirement under England & Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at www.hetas.co.uk.

#### **GENERAL**

When installing, operating and maintaining your stove respect basic standards of fire safety. Read these instructions carefully before commencing the installation. Failure to do so may result in damage to persons or property. Save these instructions for future reference.

Special care must be taken when installing the stove such that the requirements of the Health & Safety at Work Act are met.

Any alteration that is not approved by AGA, could invalidate the approval of the appliance, operation of the warranty and could also affect your statutory rights. Use only authorised replacement parts.

#### Handling

Adequate facilities must be available for loading, unloading and site handling.

#### **Fire Cement**

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact with the skin wash immediately with plenty of water.

### **Asbestos**

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek guidance and use appropriate protective equipment.

# **Metal Parts**

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

# THE CLEAN AIR ACT 1993 AND SMOKE CONTROL AREAS

The Clean Air Act 1993 and Smoke Control Areas" Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control

area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

Further information on the requirements of the Clean Air Act can be found here: http://smokecontrol.defra.gov.uk/

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements"

The Shawbury stove has been recommeded for use in smoke controlled areas when burning wood logs only and fitted with a factory modified air control to allow a minimum amount of combustion air when the air controls are set at minimum.

IMPORTANT WARNING: This stove must not be installed into a chimney that serves any other heating appliance. There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.

The installation must be completed in accordance with current National and European Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.

#### **PRE-INSTALLATION**

Before using the stove for the first time all remaining stickers must be removed, all accessories must be removed from the ashpan, check if any items have become dislodged during transport.

### **CHIMNEY/FLUES**

The stove is a radiant room heater and must be connected to a proper type chimney/flue for safe evacuation of products of combustion. The chimney/flue must have a diameter of 150mm or equivalent cross sectional area. Never connect to a smaller size chimney/flue. Do not connect to a chimney/flue serving another appliance. A minimum chimney/flue height of 4.5 metres from the flue spigot on the stove to the top of the chimney/flue is required. The chimney/flue must be constructed of material capable of withstanding a soot fire in the chimney/flue which can lead to temperatures of 1000 degrees. The chimney/flue must be constructed with sockets uppermost so that when condensation occurs within the pipe, it should flow down the inside of the pipe that it will transfer to the inner of the next pipe without seeping through the joints. The chimney/flue should provide a minimum continuous draught of 12 pascals, if the stove is connected into an existing chimney where the refractory flue liner is of a diameter in excess of 200mm the chimney should be relined using a flexible flue liner. The flexi liner is not recommended to be connected directly to the appliance, there should be a minimum of 0.6 meters rigid flue pipe coming off the appliance. The chimney/flue should be designed to allow for cleaning of the stove, use pipes with cleaning doors where necessary.

Avoid the use of 90 degree elbows, use 2 x 45° bends instead. Horizontal runs of flue pipe should be avoided, where it is unavoidable the maximum permitted horizontal run is 150mm. The chimney/flue must have the necessary clearance distance from combustible material. The chimney termination must be free of any obstructions, see requirements under Approved Document J, available to download at www.planningportal.gov.uk

For guidance when installing new chimney systems or relining existing chimneys please refer to BS EN 15287:

#### **DOWN DRAUGHTS**

However well designed constructed and positioned, the satisfactory performance of the flue can be adversely affected by down draught caused by nearby hills, adjacent tall buildings or trees. These can deflect wind to blow directly down the flue or create

a zone of low pressure over the terminal. A suitable anti-down draught terminal or cowl will usually effectively combat direct down blow but no cowl is likely to prevent down draught due to a low pressure zone. (See Fig.1)

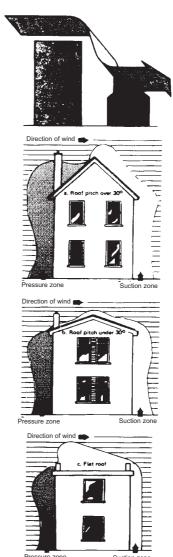


Fig 1

# VENTILATION AND COMBUSTION AIR REQUIREMENTS

Refer to extract from Building Regulations Part J to determine size of permanent air vent.

### Install where draft stabilizer is fitted:

Permanently open vents as below: If design air permeability >5.0m³/(h.m²) then 300mm²/kW for first 5kW of appliance rated output 850mm²/kW for balance of appliance rated output If design air permeability <5.0m³/(h.m²) then 850mm²/kW of appliance rated output (4)

# Install where no draft stabilizer is fitted:

Permanently open vents as below: If design air permeability >5.0m³/(h.m²) then 550mm²/kW of appliance rated output above 5kW If design air permaeability <5.0m³/(h.m²) then 550mm² per kW of appliance rated output (4) If there is another appliance using air fitted in the same or adjacent room, it will be necessary to provide an additional air supply.

All materials used in the manufacture of air vents should be such that the vent is dimensionally stable, corrosion resistant, and no provision for closure. Air inlet grills should be positioned so they do not become liable to blockage. The effective free area of any vent should be ascertained before installation. The effect of any grills should be allowed for when determining the effective free area of any vent.

Air vents direct to the outside of the building should be located so that any air current produced will not pass through normally occupied areas of the room.

An air vent outside the building should not be located less than the dimensions specified within the Building Regulations and B.S. 8303: Part 1 from any part of any flue terminal. These air vents must also be satisfactorily fire proofed as per Building Regulations and B.S. 8303: Part 1.

Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.

Air vents traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.

Joints between air vents and outside walls should be sealed to prevent the ingress of moisture. Existing air vents should be of the correct size and unobstructed for the appliance in use. If there is an extraction fan fitted in adjacent rooms where this appliance is fitted, additional air vents may be required to alleviate the possibility of spillage of products of combustion from the appliance/flue while the fan is in operation. Refer to B.S. 8303 Part 1.

Where such an installation exists, a test for spillage should be made with the fan or fans and other appliances using air in operation at full rate, (i.e. extraction fans, tumble dryers) with all external doors and windows closed.

If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed.

**Note:-** If there is any work that is being carried out that would effect the air quality supplied to the stove such as sanding a floor or glueing linoleum etc. the stove must be out of operation. The dust or vapours may be a potential hazard, the air supply and local area needs to be thoroughly ventilated before putting the stove in operation again.

# **COMMISSIONING & HANDOVER**

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, when a small fire may be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to the atmosphere. **Do not run at full output for at least 24 hours.** 

On completion of the installation and commissioning ensure that the operating instructions for the stove are left with the customer. Ensure to advise the customer on the correct use of the appliance with the fuels likely to be used on the stove and warn them to use only the recommended fuels for the stove.

Advise the user what to do should smoke or fumes be emitted from the stove. The customer should be warned to use a fire guard to BS 8423:2002 in the presence of children, aged and/or infirm persons.

## **LOCATION**

There are several conditions to be considered in selecting a location for your stove.

- A. Allowances for proper clearances to combustibles of the stove and flue pipes.
- B. The product must be installed on a non combustible hearth with adequate load bearing capacity.
- C. Fluing considerations; length of flue, length of horizontal run, flue termination.
- D. Location within area to be heated.

#### **FLOOR PROTECTION**

It is recommended that this appliance is installed on a solid, level, concrete base, a non combustible hearth conforming to current Building Regulations must extend to the front of the appliance.

# **CLEARANCE TO COMBUSTIBLES**

The minimum clearance to combustibles required is 650mm to the back and sides, and 800mm to the front. (See Fig.2)

Minimal Distances:

A > 80cm
B > 65cm

Wall

Stove Heater

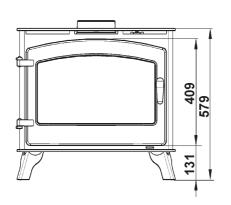
# SAFE DISTANCE OF CHIMNEYS FROM FLAMMABLE MATERIALS AND BUILDING CONSTRUCTIONS

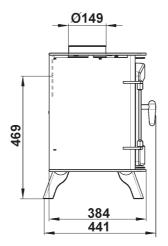
When installing a connecting flue pipe great care must be taken to ensure that there is no risk of igniting combustible material, an uninsulated flue pipe must be installed at least with a clearance of three times the diameter of the flue pipe, i.e. 150mm flue pipe requires 450mm clearance from combustibles, for further information see Building Regulation Part J.

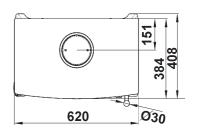
Where a flue pipe is to be installed without connecting to a chimney (passing through ceiling or combustible wall) seek guidance on clearances from combustibles from the manufacturer/supplier of the flue pipe.

# **STOVE DIMENSIONS**

Fig 3







TECHNICAL DATA		
Fuel	Wood	
Nominal Output - Room	7kW	
Typical refuelling intervals to obtain nominal outputs	1 hour	
Flue Gas Mass Flow	6.7 g/s	
Flue Gas temp at Nominal Output	281°C	
Gross Weight:	105kgs	
Flue Outlet:	150mm	
Log Size:	330mm	
This appliance has been tested in a 13240	accordance with BS EN	

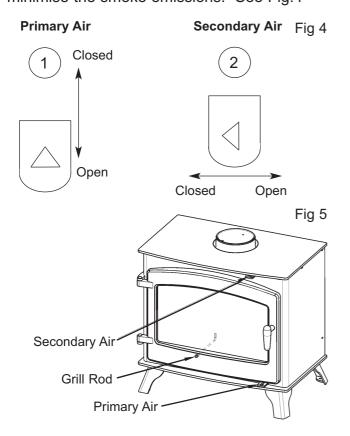
# NOTE:-

A suitable chimney (minimum profile, chimney draft, tightness, etc) is a basic condition for the proper functioning of fireplace stoves. See professional advice before installing the stove. Chimney values are included in the attached technical sheet. A smoke shutter or a draft regulator should be installed for chimneys with too strong a draft. Such a draft can cause problems during operation, e.g. intensive burning, high fuel consumption and can also lead to permanent damage to the stove.

# **AIR CONTROLS**

The stove is fitted with two air controls a primary air control located under the ash compartment and a secondary air control locted at the top of the stove.

For start up both controls should be fully open, when the fire becomes established the primary air must be adjusted to either the fully closed position or the partially open depending on the output required. The secondary air should remain open, it can be partially closed to adjust the burn rate, if closing the primary air does not slow the burn rate sufficiently the secondary air control can then be closed off to reach the desired burn rate. There is a small air opening into the stove through the secondary air even when the lever is moved to the fully closed position, this is a deliberate design feature to minimise the smoke emissions. See Fig.4



# **RECOMMENDED FUELS**

This appliance has been tested using seasoned wood logs. The appliance is suitable for intermittent operation in smoke controlled areas using wood logs.

Wood should be kept under cover and kept as dry as possible prior to use. Wood logs of diameter less than 80mm and no more than 330mm long are recommended.

Do not use liquid fuels or any fuels with a Petro-coke ingredient as this may cause the grate to overheat resulting in damage

#### **RE-FUELLING**

When refuelling, always refuel onto a bed of glowing embers, riddle gently if necessary. When refuelling, adjust the secondary air control to the fully open position for approximately 3 minutes allowing the new refuel charge to establish combustion before adjusting the air control to the desired setting.

# Refuelling on to a low fire bed

If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

### Fuel overloading

The maximum amount of fuel (2.5 kilograms per hour) should not be exceeded, overloading can cause excess smoke.

# Operation with door left open

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in the instructions.

# **DAMPERS / AIR CONTROLS LEFT OPEN**

Operation with the air controls or appliance dampers open can cause excess smoke. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in the instructions.

Remember to reset the controls after refuelling.

# **DE-ASHING**

# NOTE - DO NOT OVERFILL THE FIREBOX

Never allow the ashpan to fill more than half way as it will cause damage to the grate. Empty the ashpan before lighting. Always ensure that ashes have thoroughly cooled before removing the ashpan. Open the fire door and remove ashpan using the operating tool. Close the fire door. When the ash is disposed of, replace the empty ashpan. Do not leave the fire unattended with the fire door open, even for a minute.

WARNING - NEVER DISPOSE OF ASH WHEN STOVE IS LIGHTING.

# IMPORTANT - DAMAGE CAN OCCUR TO THE FIREBED AND GRATE ASSEMBLY IF THE ASH-PAN IS LEFT TO OVER FILL.

#### **MAINTENANCE**

# **CREOSOTE - Formation and Need for Removal**

When some fuels are burned slowly, they produce tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited creosote makes an extremely hot fire.

# **CHIMNEY CLEANING**

The chimney should be cleaned twice annually. The chimney cannot be cleaned through the stove, it will be necessary to provide a cleaning door in the flue in close proximity to the stove. The flue liner should be cleaned in accordance with manufacturers instructions. Always use a brush with plastic bristles that is the correct size to reach all areas of the flue.

If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

#### **WARNING NOTE**

Properly installed, operated and maintained the stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken:

- (a) Open doors and windows to ventilate room and then leave the premises.
- (b) Let the fire out.
- (c) Check for flue or chimney blockage and clean if required.
- (d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

# **CO ALARM**

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean at all times.

# **IMPORTANT NOTES**

Now that your stove is installed and no doubt you are looking forward to many comforts it will provide, we would like to give you some tips on how to get the best results from your stove.

- We would like if you could take some time to read the operating instructions/hints, which we are confident, will be of great benefit to you.
- Do not burn fuel with a high moisture content, such as damp or unseasoned timber.
   This will only result in a build up of tar in the stove and in the chimney and the possibility of a chimney fire.
- 3. CLEAN THE FLUE-WAYS OF THE STOVE ONCE A MONTH AND ENSURE THAT THERE ARE NO BLOCKAGES. CHECK FLUEWAYS BEFORE LIGHTING ESPECIALLY AFTER A SHUT-DOWN PERIOD. PLEASE REFER TO MANUAL FOR INSTRUCTIONS.
- 4. Before loading fresh fuel into the firebox, riddle gently, this will allow better and cleaner burning. See Re-Fuelling Section.
- Never allow a build up of ashes in the ash pan, as this may cause the grate to burn out prematurely.
- 6. Allow adequate air ventilation to ensure plenty of air for combustion.
- 7. Do not burn rubbish/house hold plastic. Do not burn manufactured timber which contains glue. Do not burn processed or pressure treated timber as this will create a very intense fire over a short period of time which will damage the appliance.
- 8. Clean the chimney at least twice a year.
- 9. Burning at a low burn rate or unseasoned timber will stain the glass. Regular cleaning will prevent permanent staining.
- Keep all combustible materials a safe distance away from the appliance, please see section for clearances to combustion.
- For safety reasons never leave children, elderly or infirmed unaccompanied while stove is in use. Use a fireguard for solid fuel appliances in accordance with BS 8423:2002.

- 12. Avoid contact with appliance when in use as the stove reaches very high operating temperatures.
- 13. This appliance should be regularly maintained by a competent service engineer. Use only replacement parts recommended by AGA. Using unauthorised parts will invalidate your guarantee and may cause damage or injury.
- 14. Do not use an aerosol spray on or near the stove when it is alight.

AN ODOUR WILL EMIT FROM STOVE ON FIRST FIRING, WHEN FIRE REACHES MAXIMUM TEMPERATURE OVER A NUMBER OF HOURS THIS ODOUR WILL SUBSIDE.

IT IS BEST ADVISED TO OPEN WINDOWS DURING THIS PERIOD.

THIS ODOUR IS UNPLEASANT BUT NOT TOXIC. YOU MAY WISH TO VACATE THE ROOM WHILE THE PAINT CURES.

#### LIGHTING

Before lighting the stove check with the installer that the installation work and commissioning checks described in the installation instructions have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the stoves commissioning and handover the installer should demonstrate how to operate the stove correctly.

WARNING:- The paint on the stove gets finally cured when the stove is lit, during the first fire the paint can soften, the doors of the stove should be closed but not latched during the first fire, otherwise the rope on the door can become embedded in the paint during final curing.

IMPORTANT: The first few fires should be relatively small to permit the refractory to set properly and to season the stove.

- 1. Before lighting the stove, ensure that any buildup in the firebox has been removed and that the ashpan has been emptied.
- 2. Open the primary air partially. Open the secondary air to maximum open.

- Lay some firelighters on the grate with two handfuls of kindling. The kindling must be cut into thin lengths and laid across each other in layers to allow for a quick lightup. Ignite the firelighters and close the door.
- 4. When the firebed has fully ignited and is starting to die back add 3 small logs.
- 5. Approximately 2 minutes after adding the logs the door can be closed, but air settings remain unal tered.
- 6. When the fire from the 3 logs is dying back a normal fuel load of approx 1.5kg is to be added to the fire. Leave the air controls unaltered for 5 minutes to ensure the new fuel load is well alight before closing the primary air control and adjusting the secondary air control to the desired setting.

#### **FIRE SAFETY**

To provide reasonable fire safety the following should be given serious consideration:

- 1. The installation of smoke detectors.
- 2. A conveniently located fire extinguisher to contend with small fires resulting from burning embers.
- 3. A practical evacuation plan.
- 4. A plan to deal with a chimney fire as follows:
  - a. Notify the fire department.
  - b. Prepare occupants for immediate evacua-
  - c. Close all openings into the stove.
  - d. While awaiting the fire department watch for ignition to adjacent combustibles from over head stove pipe or from embers or from sparks from the chimney.

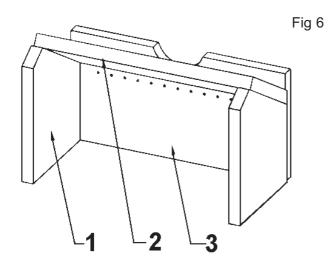
#### **CO ALARMS**

Building regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50202:2012 and from the alarm manufacturers instructions.

Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

# FIREBRICK REPLACEMENT

- 1. Tilt and pull out the side Vermiculite 1.
- 2. Tilt and pull out the top rear ceiling Vermiculite 2.
- 3. Tilt and pull out the rear Vermiculite 3.
- 4. Follow the reverse sequence for assembly. See Fig 6.



# Note:-

Stress fractures in the firebrick do not have an effect on the combustion or the service life of the stove, however If the metal behind the bricks becomes exposed from a fractured brick replace immediately as this will cause damage to the stove.

#### GLASS

## 1. How to clean:

The glass will clean itself when there is sufficient heat generated by burning fuel. If a build-up of creosote occurs on the glass it may be due to draft conditions, poor quality fuel or very slow burning for a long time. Only clean glass when the stove is thoroughly cooled. Clean with a liquid detergent taking care not to scratch the glass with any ash deposits.

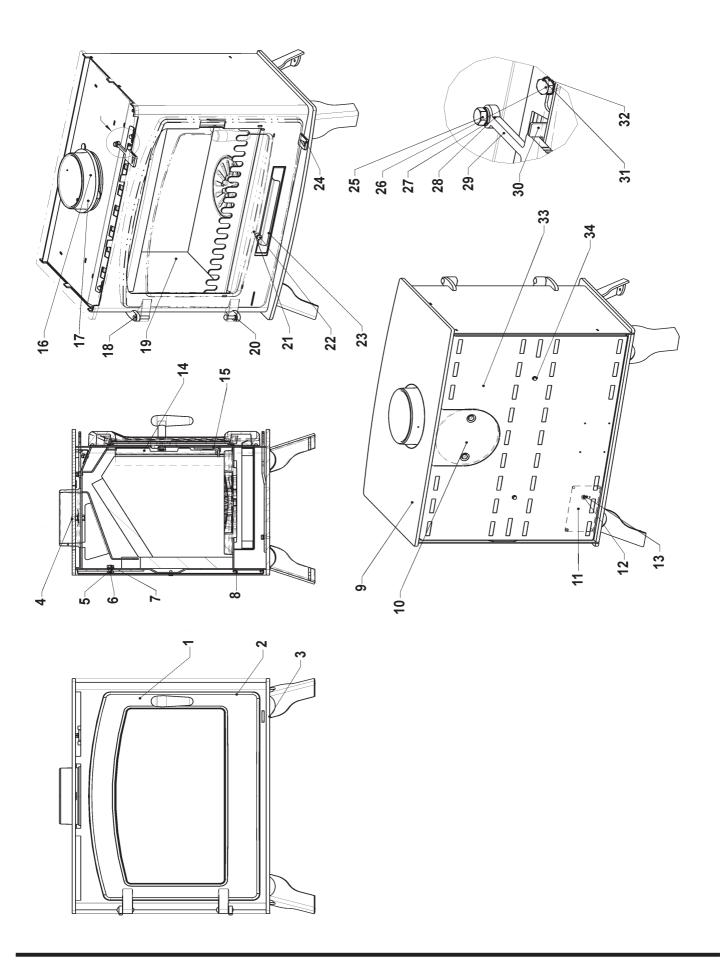
# 2. Glass Replacement:

- a. Open the door fully.
- b. Remove the clips and carefully remove the broken glass.
- c. Clean the glass recess in the door.
- d. Place the glass into the door recess and replace the four corner clips.
- e. Tighten screws.
- f. Replace glass only with ceramic glass 5mm thick.

# **SUMMER SHUTDOWN**

For summer shutdown of the stove, ensure all ashes have been cleaned from the ash compartment and that the air control is open, to avoid condensation in the stove firebox and possible corrosion during this shutdown period.

# **EXPLODED VIEW**



# **PARTS LIST**

Exp. View No.	Part Code
1	119A_0300_001
2	CSN021740_5
3	119A_0100_001
4	CSN_021103_M8X25
5	CSN_021702A_8_4
6	CSN_021103_M8X16
7	CSN_021401_M8
8	CSN_021103_M5X6
9	119A_0200_001
10	4901_000_025_24
11	119A_0000_081
12	CSN_021103_M6X16
13	031_030_181
14	119A_0000_151
15	119A_0000_131
16	042A_0000_121
17	4901_000_008_23
18	CSN_022301_8X35
19	119A_2000_001
20	544_080_031
21	119A_0000_101
22	001A_0000_271
23	119A_0000_041
24	119A_0000_091
25	CSN_021103_M6X12
26	CSN_021103_M6X12
27	CSN_021702A_6_4
28	031_030_181
29	119A_0000_021
30	119A_0000_011
31	CSN_021702A_6_4
32	031_030_181
33	119A_0000_111
34	D7500DM5X8_BL_VZ





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