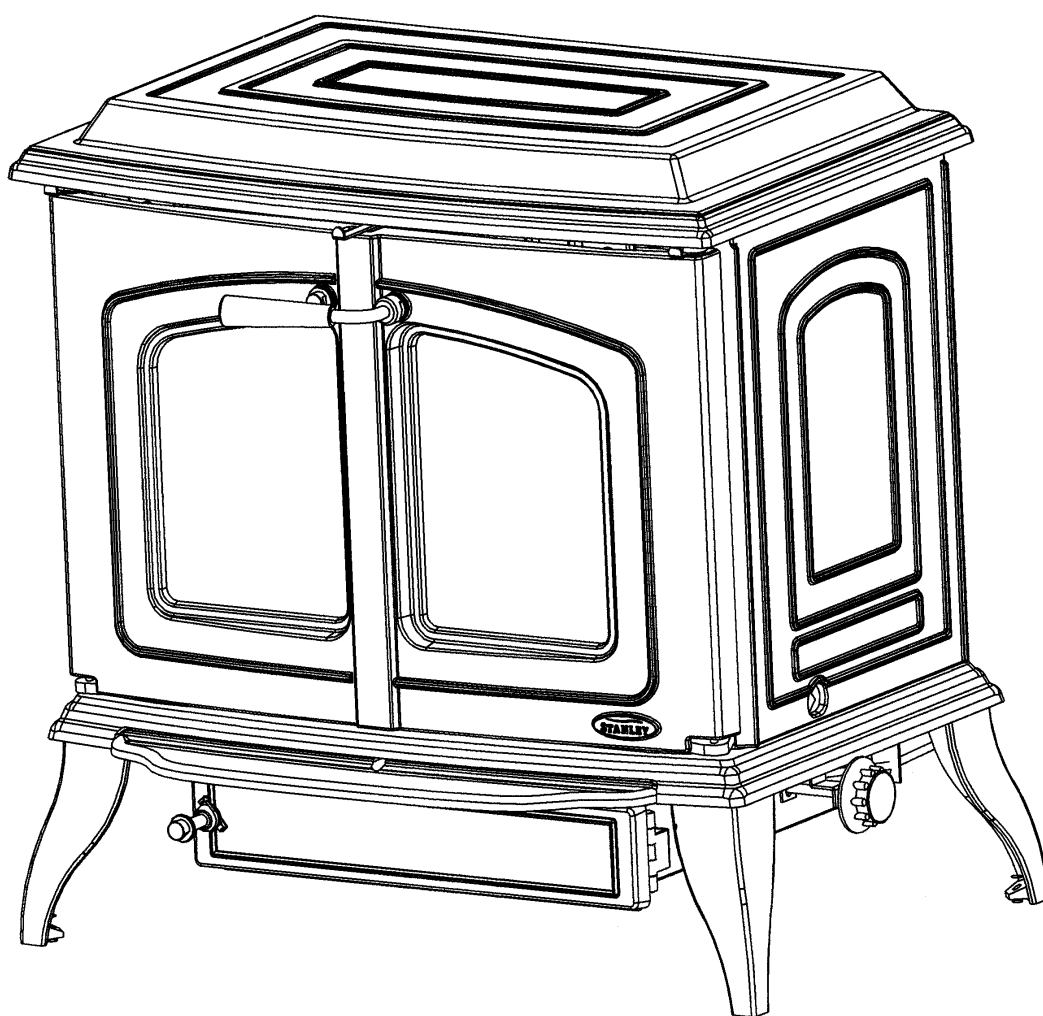


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# STANLEY

TURNING YOUR HOUSE INTO A HOME

## GRAINNE NON BOILER SOLID FUEL STOVE



### ***INSTALLATION AND OPERATING INSTRUCTIONS***

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.

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## GRAINNE SOLID FUEL STOVE INSTALLATION & OPERATING INSTRUCTIONS

### GENERAL

When installing, operating and maintaining your Grainne 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 and property. Consult your local Municipal office and your insurance representative to determine what regulations are in force. Save these instructions for future reference.

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 It should be noted that the requirements and these publications may be superseded during the life of this manual.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 ASSEMBLY

1. Remove the flue spigot and put in the orientation required. (See Flue Connections)
2. Remove the stove from the wooden pallet.

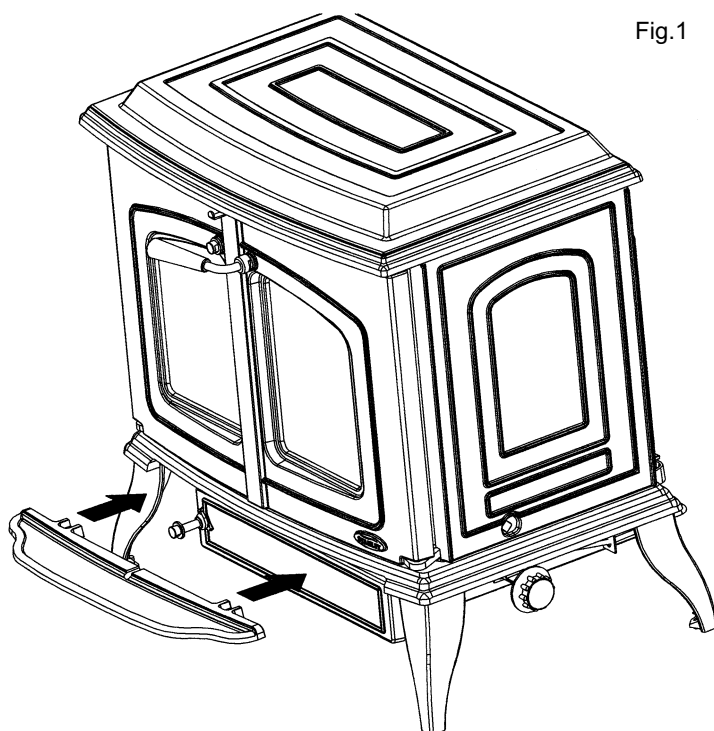


Fig.1

3. Unscrew the two  $\frac{1}{4}$ " x  $\frac{1}{2}$ " round head screws from the base and fit the front ash tray using the two screws (see Fig.1).

Fit the primary air control knob to the flexible drive.

### FLUES

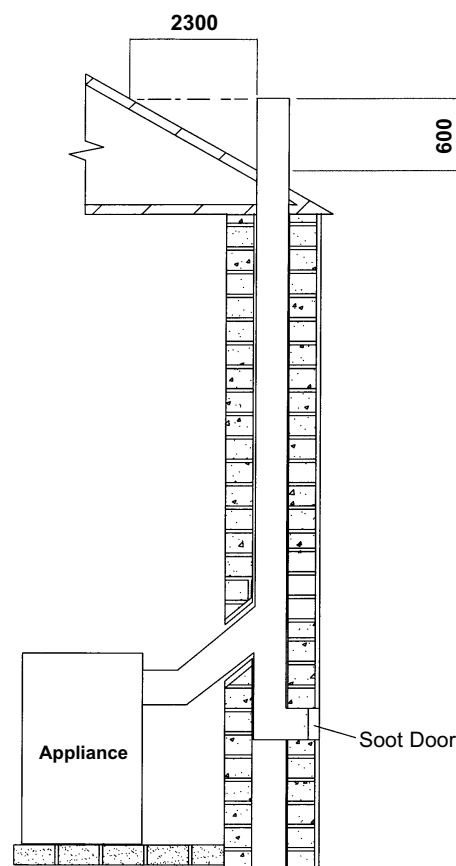
Flues should be vertical wherever possible and where a bend is necessary, it should not make an angle of more than  $45^\circ$  with the vertical. Horizontal flue runs should be avoided except in the case of a back outlet from the appliance, when the length of the horizontal section should not exceed 150mm.

In order to minimise flue resistance and to make sweeping easier it is recommended to use 2 x  $45^\circ$  bends rather than a  $90^\circ$  bend.

The flue termination point must be located to minimise any wind effects. Wind effects of suction, pressure zones and turbulence can be created by the roof and adjacent objects. Wind effects can also be created by natural land contours.

To minimise the wind effects, the flue termination point should be located a minimum of 600mm from the roof measured vertically and 2300mm measured horizontally. Where this termination point does not suffice it may be necessary to extend the flue pipe so that the termination point is above the apex.

Fig.2



### FLUE PIPES

A flue pipe should only be used to connect an appliance to a chimney and should not pass through any roof space.

Flue pipes may be of any of the following materials:

- (a) Cast iron as described in BS 41: 1973 (1981), or

- (b) Mild steel with a wall thickness of at least 3mm, or
- (c) Stainless steel with a wall thickness of at least 1mm and as described in BS EN 10095: 1999 Specification for stainless and heat resisting steel plate, sheet and strip, for Grade 316 S11, 316 S13, 316 S16, 316 S31, 316 S33, or the equivalent Euronorm 88-71 designation, or
- (d) Vitreous enamelled steel complying with BS 6999: 1989.

Flue pipes with spigot and socket joints should be fitted with the socket uppermost.

## CHIMNEY

The stove is a radiant room heater and must be connected to a chimney of the proper size and type. The chimney must have a cross sectional area of at least 19350 square mm (30 square inches) or a diameter of 150mm (6 "). The chimney should be checked for soundness and draught before installation. The stove must be connected to a chimney with a minimum continuous draught of 12pa. Poor draught will result in poor performance. Similarly an excessive draught will result in the appliance over firing or being difficult to control. An excessive draught may require a flue draught stabiliser to be fitted. Do not connect this appliance to a chimney serving another appliance. The minimum required chimney height is 4.5 metres from the floor on which the appliance is installed. An existing masonry chimney should be inspected and if necessary, repaired by a competent mason.

## 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.

## VENTILATION & COMBUSTION AIR REQUIREMENTS

This appliance is rated at less than 9kW. It is imperative that there is sufficient air supply to the stove in order to support correct combustion. The air supply to this appliance must comply with B.S. 8303: Part 1 and current Building Regulations. The minimum effective air requirement for this appliance is 22cm<sup>2</sup>. If a draught stabiliser is used then this increases to 49cm<sup>2</sup>.

When calculating combustion air requirement for this appliance use the following equation: a total free area of at least 550mm<sup>2</sup> per kW of rated output above 5kW shall be provided. If there is another air using appliance fitted in the same or adjacent room, it will be necessary to calculate additional air supply. All materials used in the manufacture of air vents should be such that the vent is dimensionally stable and corrosion resistant.

The effective free area of any vent should be ascertained before installation. The effect of any screen 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 from any part of any flue terminal. These air vents must also be fire proofed as per Building Regulations.

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 air extraction fan or other air using appliance fitted in the room or adjacent rooms where this appliance is fitted, additional air vents will be required to alleviate the possibility of spillage of products of combustion from the appliance/flue while the fan is in operation.

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.

## FLUE PIPES

Flue pipes with spigot and socket joints should be fitted with the socket upper most. Clearance to combustibles must be adhered to when fitting the flue pipe. The flue gas mass flow is 7.6 g/s mineral fuel and 7.9 g/s wood logs. The mean flue gas temperature directly downstream of the spigot at nominal heat output is 317°C. The appliance is suitable for continuous operation on solid mineral fuel and intermittent operation on wood logs.

## FLUE CONNECTION

This stove can be connected to either a top flue exit or a rear flue exit by simply reversing the orientation of the flue spigot on the flue spigot flange. When connecting to a flue pipe it is recommended to have an access door in the pipe for flue and chimney cleaning as it is not possible to sweep through the appliance.

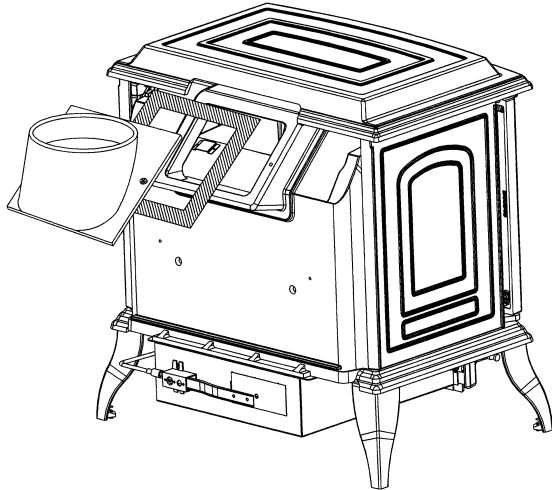


Fig. 3

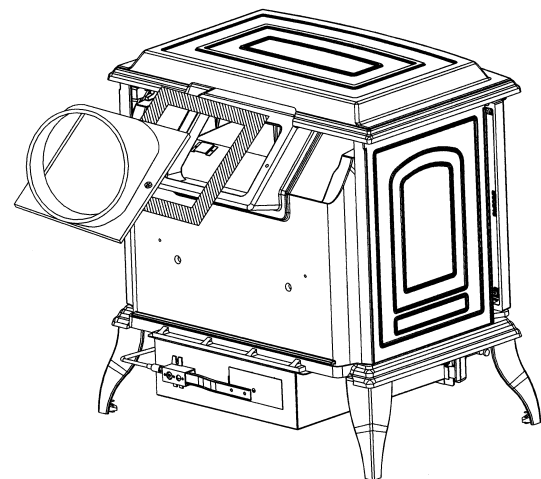


Fig.4

## LOCATION

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

- Position in the area to be heated- central locations are usually best.
- Allowances for proper clearances to combustibles.

**Note:** Sufficient space should be given around the back and sides of the stove to allow access to the air control damper.

## INSTALLATION CLEARANCES

**Maintain at least the following clearances to all combustible material:**

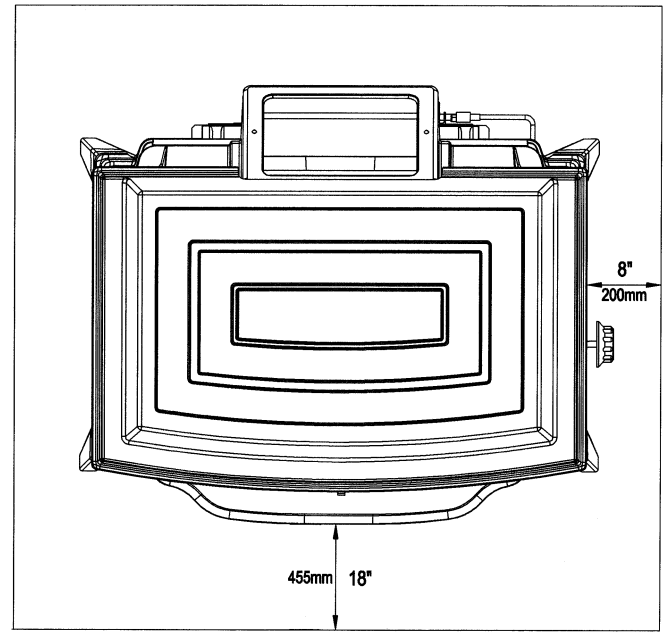
From the front	910 mm
From the back	800 mm
From the sides	800 mm
From the flue pipe	910 mm

It is recommended that this appliance is sited next to and on a non-combustible surface. A minimum all round clearance of 100 mm will allow air circulation and not impede the performance of the stove.

## FLOOR PROTECTION

It is recommended that this appliance is installed on a solid, level, non combustible hearth conforming to current Building Regulations.

Fig.5



## TECHNICAL DATA

### Nominal Heat Output:

Wood Logs 8.2kW  
Solid Mineral Fuel 8.5kW

Typical refuelling intervals to obtain nominal outputs:

1.5 hours wood  
4 hours solid mineral fuel

**Wood Log Size:** 400mm

**Gross Weight:** 167kgs

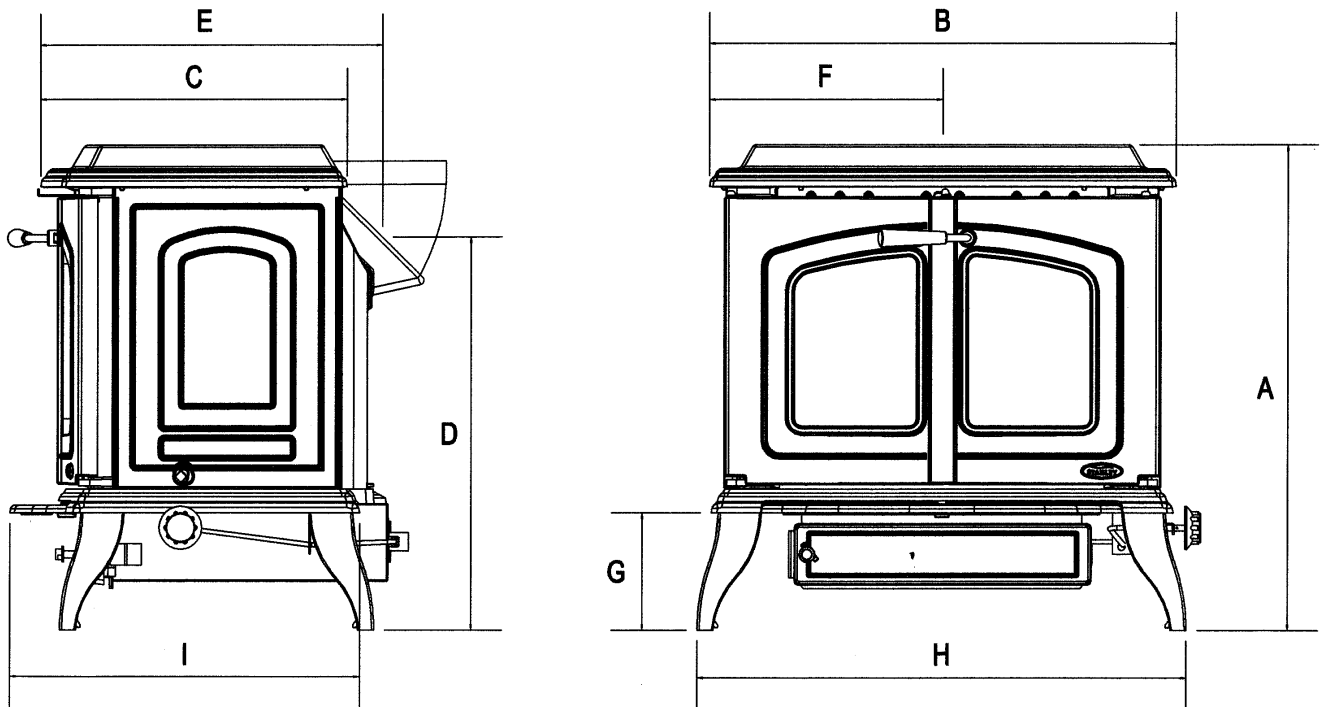
Mean Flue gas temperature directly downstream of the spigot at nominal output 317°C

The appliance is suitable for continuous operation on solid mineral fuel and intermittent operation on wood logs. This appliance has been tested using seasoned wood logs and manufactured briquetted smokeless fuel (Ancit) for closed appliances, sized between 20g and 140g. Other fuels are commercially available. Wood logs up to 400 mm long are suitable. All fuels should be stored under cover and kept as dry as possible prior to use.



## SPECIFICATION

Fig.6



Dimensions	A	B	C	D	E	F	G	H	I
Metric (mm)	660	648	430	541	485	324	165	697	495

**NOTE:** Dimensions stated below may be subject to a slight +/- variation.

	<u>Metric</u>
Depth	495mm
Flue Outlet	152mm
Fire Door Size	455x230mm
Log Size	406mm

## OPERATING INSTRUCTIONS

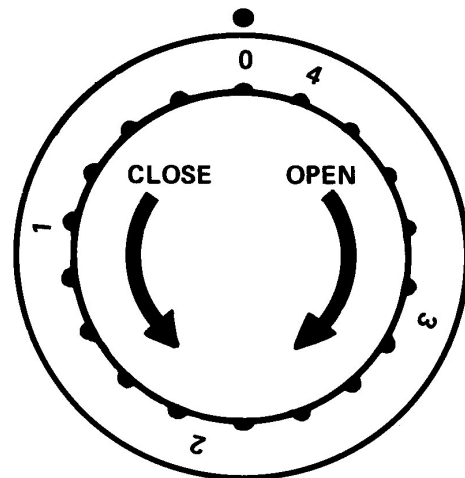
COAL, ANTHRACITE, WOOD SYNTHETIC LOGS, OR OTHER FUELS. "Never use gasoline" gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or 'freshen up' a fire in this heater. Keep all such liquid well away from the heater at all times. Operate stove only with fuelling door and ashpit doors closed. This heater is hot whilst in operation. Keep children, clothing and furniture a safe distance away.

### LOW / SLUMBER BURN

To achieve an overnight or a low burn rate, close the air wash slider fully by sliding the lever left using the ashpan tool and turn the primary air control knob to setting 0.

### PRIMARY AIR CONTROL

Fig.7



Setting 0:		Overnight Burning
Setting 1:	Closed	
Setting 2:		Slow burning
Setting 3:		Medium burning
Setting 4:		Maximum Heat

Rotate the knob to the required setting. These are a guide only and experience will dictate the required setting for comfort.

## RECOMMENDED FUELS

This appliance has been tested using seasoned wood logs and manufactured briquetted smokeless fuel (Ancit) for closed appliances, sized between 20g and 140g. Other fuels are commercially available and may give similar results. Wood logs up to 400mm long are suitable. All fuels should be stored under cover and kept as dry as possible prior to use. Do not use fuels with a coke ingredient as this may cause the grate to overheat, causing damage. Reduced outputs will result when fuels of lower calorific values are used. Never use gasoline or gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or freshen up a fire in this heater. Keep all such liquid well away from the heater at all times. Operate the stove only with the fuelling door closed except for re-fuelling.

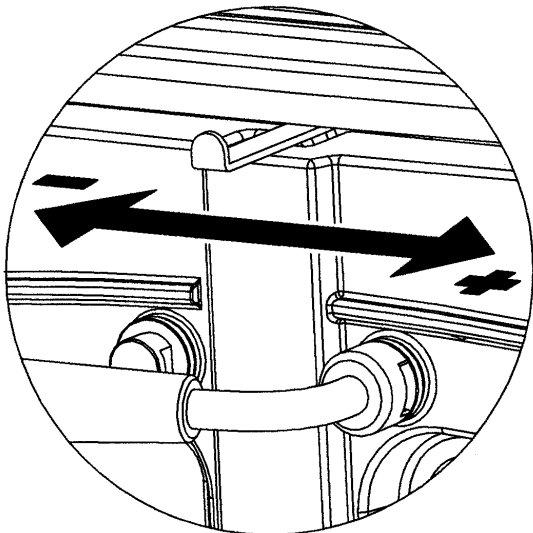


Fig.8

**OPEN**  
**CLOSE**

When burning coal, timber or peat.  
When burning anthracite and  
smokeless fuels.

**WARNING: THE AIR SLIDER IS HOT WHILE STOVE IS IN USE - USE TOOL TO OPERATE.**

**WARNING: DO NOT OBSTRUCT PRIMARY AIR SUPPLY TO THE AIR DUCT AT THE BACK OF THE STOVE.**

## OPENING STOVE DOOR

The stove is provided with a removable handle. The door opening mechanism is operated by sliding the handle onto the door latch shaft located on the right hand door. Slide the handle from right to left in a horizontal position as shown in Fig.10. When fitted, then rotate the handle in an anticlockwise direction to open the door.

Reverses the above procedure to lock the door. The door latch shaft on the left hand door is fixed and cannot be rotated. If you require to open this door whilst hot, slide the handle on from top down to the bottom in a vertical direction and then use the handle to pull the door open. The right hand door must be open to allow the left hand door to open.

Fig.9

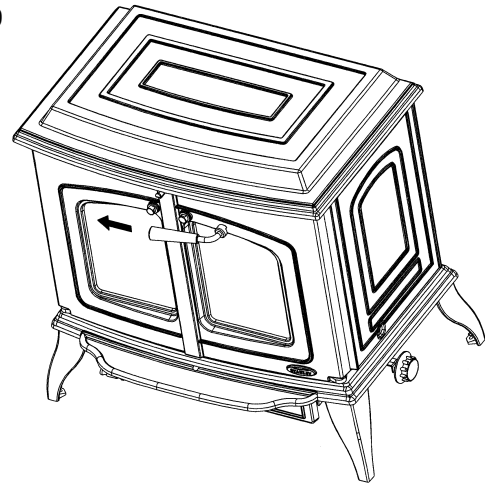
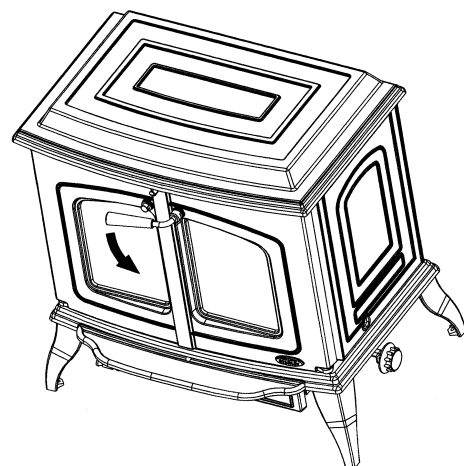


Fig.9a



## **IMPORTANT NOTES**

Now that your AGA Solid Fuel 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.

1. 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.
2. Do not burn fuel with a high moisture content, such as a damp or unseasoned timber. This will only result in a build up of tar in the stove and in the chimney.

<b>FUEL CALORIFIC VALUES - SOLID FUELS</b>		
Anthracite 25-50mm	C.V.: 8.2kW/Kg	14,000 BTUs/lb
House Coal 25-75mm	C.V.: 7.2kW/Kg	12,000 BTUs/lb
Timber - Firebox size	C.V.: 5.0kW/Kg	8,600 BTUs/lb
Peat Briquettes	C.V.: 4.8kW/Kg	8,300 BTUs/lb

3. Clean the flue-ways of the stove weekly 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 fully to remove all ashes, this will allow better and cleaner burning. See Re-Fuelling Section.
5. Never allow a build up of ashes in the ash pan, as this will cause the grate to burn out prematurely. Empty the ashpan when re –fuelling.
6. Allow adequate air ventilation to ensure plenty of air for combustion.
7. Do not use as an incinerator burning rubbish/household waste.
8. Do not leave ash door open for long periods as this will over heat the unit causing unnecessary damage. Close the ash door between removing and replacing the ashpan.
9. Clean the chimney at least twice a year.
10. Burning soft fuels such as timber or peat will stain the glass. Regular cleaning will prevent permanent staining. Clean with soapy water when cool.
11. Keep all combustible materials a safe distance away from unit, please consult manual for clearance to combustibles table.
12. For safety reasons never leave children or the elderly unaccompanied while stove is in use. Use a fire guard.
13. Avoid contact with the appliance when in use as stove reaches very high operating temperatures.
14. This appliance should be regularly maintained by a competent service engineer.
15. Store the operating tool / door handle on the ash door on the bottom of the stove. **DO NOT STORE THIS HANDLE ON EITHER OF THE FIREBOX DOORS AS THE HANDLE WILL GET EXCESSIVELY HOT WHILE THE STOVE IS IN OPERATION.**

Use only replacement parts recommended by AGA. Making unauthorised modifications, or using unauthorised parts will invalidate your guarantee and may cause damage or injury.



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## **LIGHTING**

- 1. Before lighting the stove, ensure that any build up of ashes in the fire box has been removed and that the ashpan has been emptied.**
- 2. Open the firebox and cover the grate with crumpled pieces of paper.**
- 3. Lay pieces of kindling on top of the paper towards the back of the fire box.**
- 4. Open the primary air inlet by turning the control knob to setting 4.**
- 5. Open the secondary air control by sliding the control lever located over the top of the fire door to the right. (See Fig.8).**
- 6. Ignite the paper and close the firedoor.**
- 7. When the kindling is well alight, open the fire door and add more kindling of a larger size to sustain the fire. Close the firedoor. Do not operate this appliance with the firedoor open.**
- 8. Never use inflammable liquid i.e. gasoline, petrol paraffin etc. to start or freshen up a fire in this heater.**
- 9. When a hot bed of fuel is established, add the normal fuel load and adjust the air controls to the required setting.**
- 10. When re-fuelling open the firedoor and reload, close the firedoor.**
- 11. To shut the fire down, do not add fuel, make sure that the firedoor is properly closed and that the primary and secondary air controls are all in the closed position. Cutting off the air supply will reduce the heat output.**

**This appliance is hot whilst in operation.**

**Keep children, clothing and furniture a safe distance away.**

## DE-ASHING

When ash build-up becomes excessive in the fire chamber shake the firebars by inserting the operating tool/door handle into the round slot on the right side of the stove, twisting clockwise and anti-clockwise.

A poker is also provided for de-ashing.

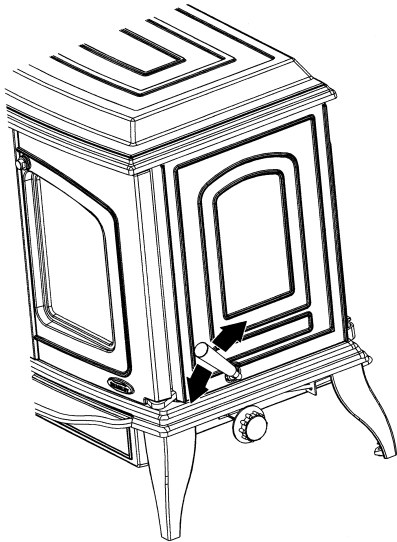


Fig.10

## DISPOSAL OF ASHES

The stove is provided with a steel ashpan. This ashpan must be emptied every day.

If ashes are allowed to build up to grate level the firebars could be damaged by overheating. We recommend that you remove ashes after you have riddled the fire following an overnight burn.

**Note:** The stove should never be operated with the ashpit door open.

Ashes should be placed in a metal or other non-combustible container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible material, pending final disposal. If ashes are buried in soil, or otherwise dumped they should be retained in the closed container until they are thoroughly cooled.

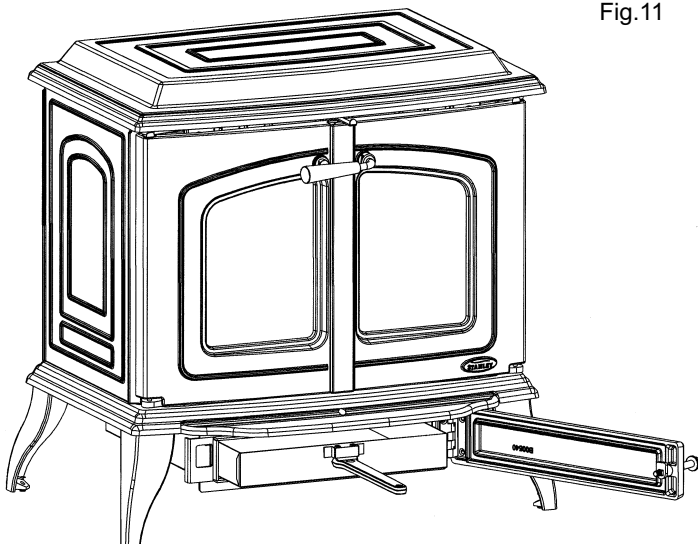


Fig.11

## TO CLEAN CHIMNEY OUTLET

**These parts are heavy and must be allowed to cool before removal.**

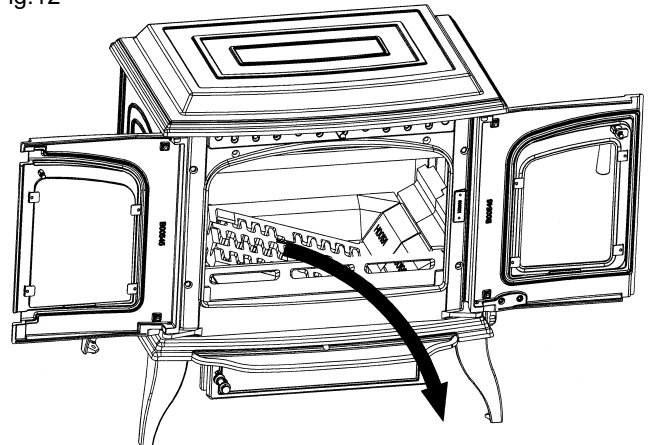
Remove hob and place to one side, taking care not to damage the enamel finish. Remove the hotplate and inner top by unscrewing the four  $\frac{1}{4}$ " hex head bolts and insert the cleaning brush. Replace the hotplate and inner top, ensuring that the rope on the bottom of the inner top has not moved out of position or been damaged. Replace the hob before relighting the fire.

## TO REPLACE DAMAGED GRATE OR GRATE BAR

Remove the front brick, the back brick, all the left hand side bricks and both small right side bricks from the stove, taking care not to damage or break any of the bricks in the process. Tilt the grate assembly up on the left hand side of the stove and pull towards the left side of the stove until the driven rocker bar is clear of the right hand firebricks. Remove the grate assembly from the firebox, replace the damaged part and reassemble the firebox by re-positioning the grate assembly and then reposition all the firebricks.

Ensure the riddling mechanism works properly from outside the stove before replacing the firebricks.

Fig.12



## FIRE SAFETY

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

1. Do not over fire the stove.
2. Over-firing will also damage painted or enamel finish.
3. Install a smoke detector in the room.
4. A conveniently located class A fire extinguisher to contend with small fires resulting from burning embers.

5. A practical evacuation plan.
6. A plan to deal with a chimney fire as follows:-
  - (a) Notify the fire department.
  - (b) Prepare occupants for immediate evacuation.
  - (c) Close all openings into the stove.
  - (d) While awaiting the fire department watch for ignition to adjacent combustibles from over heated flue pipe or from embers or sparks from the chimney.

## IN CASE OF FIRE

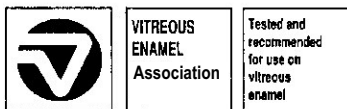
Close all openings into the stove and watch for ignition of adjacent combustibles from over heated stove, or hot embers or sparks from chimney.

## VITREOUS ENAMEL CLEANING

General cleaning must be carried out when the stove is thoroughly cool.

If this stove is finished in a high gloss vitreous enamel, to keep the enamel in the best condition observe the following tips:

1. Wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster.
2. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.
3. Use only products recommended by the Vitreous Enamel Association, these products carry the Vitramel label.

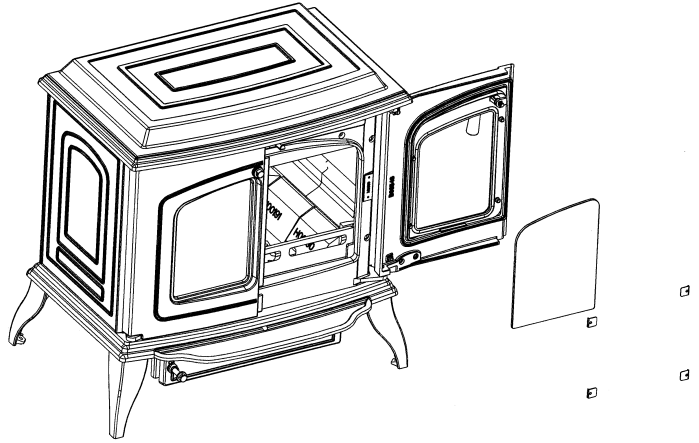


4. **DO NOT USE ABRASIVE PADS OR OVEN CLEANSERS CONTAINING CITRIC ACID ON ENAMELLED SURFACES. ENSURE THAT THE CLEANSER MANUFACTURERS INSTRUCTIONS ARE ADHERED TO.**

## GLASS CLEANING

The glass will self clean when there is sufficient heat generated by the burning fuel. If a build-up of creosote occurs on the glass it may be due to draft conditions, poor quality fuel or very low burning for a long time. It is best to clean the glass when it is thoroughly cooled.

Fig.13

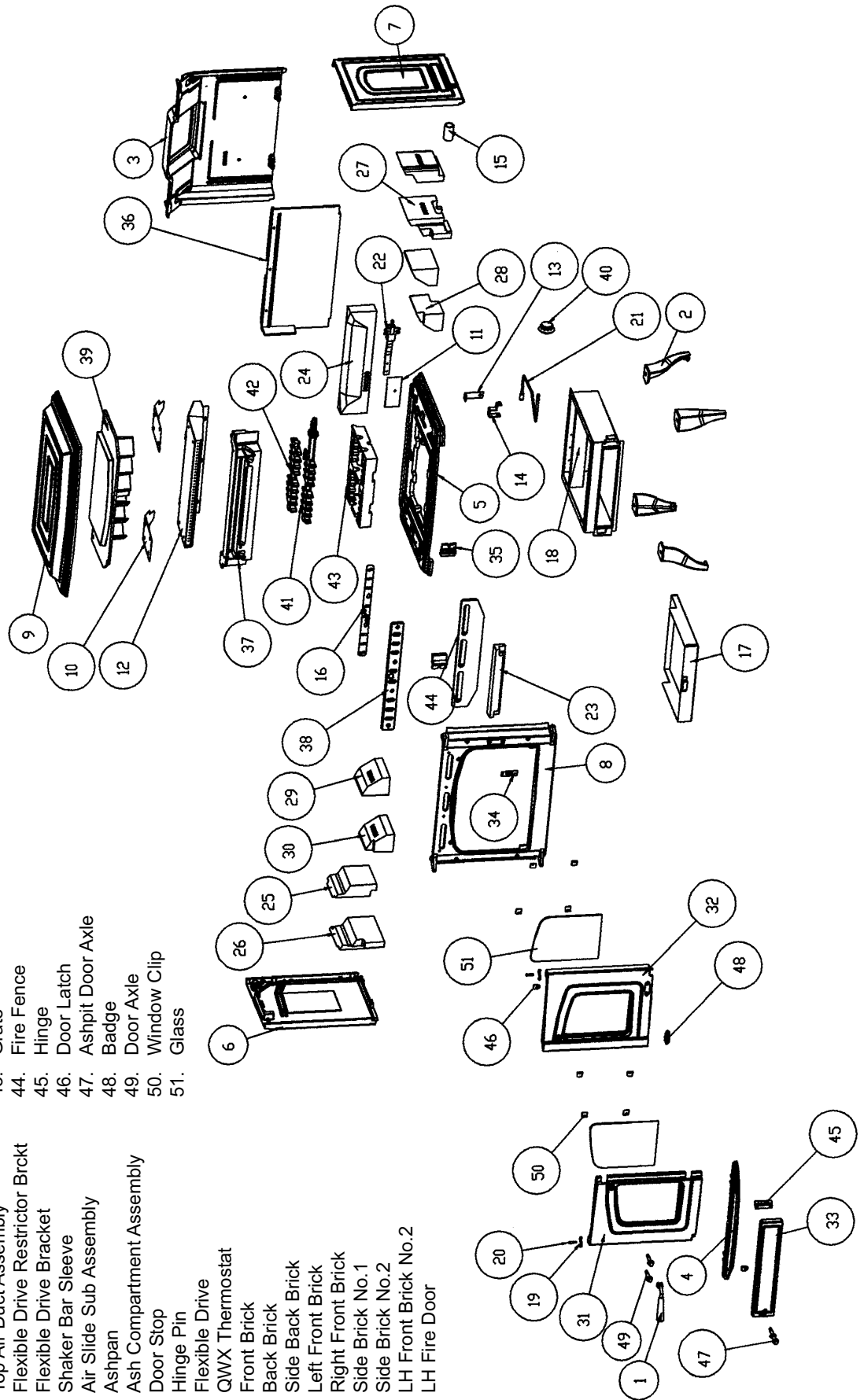


## GLASS REPLACEMENT

- (a) Open the fire door fully.
- (b) Remove the screws and the four segments of the window frame and carefully remove the broken glass.
- (c) Clean the glass recess in the door.
- (d) Attach adhesive thermal tape to the perimeter of the replacement glass.
- (e) Place the thermal tape side of the glass into the door recess and replace the four segments of the window frame.
- (f) Tighten screws.
- (g) Replace glass only with ceramic glass 5mm thick.

## GRAINNE SOLID FUEL EXPLODED VIEW

1. Handle
2. Leg
3. Outer Back
4. Ashtray Front
5. Base Panel NB [Grainne]
6. LH Side
7. RH Side
8. Front
9. Hob
10. Top Air Duct Wings
11. Air Control Stat Plate
12. Top Air Duct Assembly
13. Flexible Drive Restrictor Brckt
14. Flexible Drive Bracket
15. Shaker Bar Sleeve
16. Air Slide Sub Assembly
17. Ashpan
18. Ash Compartment Assembly
19. Door Stop
20. Hinge Pin
21. Flexible Drive
22. QWX Thermostat
23. Front Brick
24. Back Brick
25. Side Back Brick
26. Left Front Brick
27. Right Front Brick
28. Side Brick No.1
29. Side Brick No.2
30. LH Front Brick No.2
31. LH Fire Door
32. RH Fire Door
33. Ash Pit Door
34. Serial Number Plate
35. Fire Fence Support
36. Back Panel
37. Air Wash Casting
38. Air Wash Casting
39. Inner Top
40. Air Control Knob
41. Rocker Bar (Driven)
42. Rocker Bar (Idle)
43. Grate
44. Fire Fence
45. Hinge
46. Door Latch
47. Ashpit Door Axle
48. Badge
49. Door Axle
50. Window Clip
51. Glass



Manufactured by  
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**STANLEY**  
 TURNING YOUR HOUSE INTO A HOME