

**This information refers to the following products**

# **Agamatic Solid Fuel Boiler Model Deluxe C (1956-1988)**

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## **WARNING**

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**Operating Instructions**

# **AGAMATIC BOILER**

**Models C (Standard & De Luxe)**

**Model 30/80**

**Free-standing Agamatic**

**AGA**



# Operating Instructions

## Correct

### Fuel

The most economical and satisfactory fuel is good quality coke. For small domestic hot water systems No. 3. Gas Coke ( $\frac{1}{2}$ " x  $1\frac{1}{4}$ " ) is recommended to ensure continuous burning. For larger systems and where radiators are to be heated, No. 2. Gas or Hard Coke (1" x 2") will give better results. Anthracite 2" or Phurnacite, may be used as alternatives, and will give a longer burning period between refuellings. (See below under Riddling.) The Agamatic will dispose of dry combustible refuse, which should be put in the boiler in small quantities, at times when the fire has burned partly down.

## Fire Lighting

Remove any ashes or dead fuel from the grate and lay the fire in the ordinary way with paper, wood and a small quantity of fuel. Light the paper from under the grate and place the ashpan in position. As soon as the wood is well alight close the ashpit door, and add sufficient fuel to cover the fire bed. When the fire is incandescent, fill the boiler with fuel to within an inch or so of the filler hole. If a gas poker is available, this may be used by inserting the poker through the space above the edge of the round grate.

## Refuelling

The fuel consumption of the Agamatic and the frequency with which it has to be recharged will depend on the amount of hot water used and/or the size and number of radiators being heated. For average requirements and with average quality coke, refuelling twice in twenty-four hours should suffice. For maximum requirements, an extra refuelling may be necessary. Always refill the boiler up to the top.

## Riddling

**Anthracite and Phurnacite give off combustible gases which may ignite and cause blow-back. When using these fuels it is recommended that the Agamatic should be refuelled BEFORE the grate is riddled.**

After refuelling, the grate should be riddled. Engage the forked end of the ashpan removal tool over the knob to the left of the ashpit door, and move backwards and forwards several times. Open the reflector plate covering the sight glass in the ashpit door and observe that there is a glow from the fire. If the grate cannot be satisfactorily cleared of ash due to a collection of stone or shale, the grate and grate carrier should be removed when the fire is out. (See "Removing the Grate".) Remove the ashpan with the lifting tool and empty at regular intervals. When emptying the ashpan do not leave the ashpit door open for longer than is necessary. After replacing the ashpan make sure no ash is left in the ashpit opening which may prevent the ashpit door from closing tightly.

## Temperature Control

The operation of the thermostat control will depend on the type of hot water system to which the Agamatic is connected. With systems in which the maximum heat radiation is constant, that is, systems either providing domestic hot water only, or serving radiators only, the control should be adjusted during the first few days after installation until the desired maximum water or radiator temperature is obtained. The Aga thermostat will then take complete control and no further manual adjustment is required. With systems combining radiators with the hot water supply, the control should first be adjusted with the radiators turned off until the correct water temperature is obtained, and a note made of this setting. The radiators should then be turned on and the control advanced until the same water temperature is again attained. If a practice is made of turning off all or some of the radiators at night, the control should be retarded to the original setting at the same time, and advanced when the radiators are brought into use again.



### Draught

### Control (Model 30/80 only)

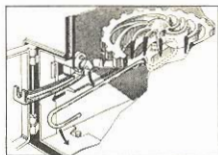
In normal circumstances the draught control lever on the right of the top plate should be left open. In the event of excessive draught causing the fire to burn too rapidly, however, the lever should be adjusted by pulling it forward until the correct draught conditions have been obtained.

### Flue Cleaning

If the Agamatic is connected to the chimney with flue pipe, this pipe should be inspected from time to time, and cleaned when necessary with a flexible flue brush.

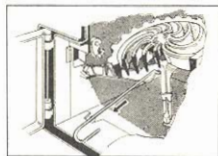
### Removing The Grate

It is necessary to withdraw the grate if the boiler has to be relit or to remove large stones or foreign matter which may have been put into the boiler accidentally with the fuel. With the fire out engage the hooked end of the grate removal tool in the groove on the underside of the grate carrier, raise the handle of the tool as far as possible, and pull forward the grate supporting catch with the ashpan lifting tool. Lower the handle of the removal tool and draw out the grate and carrier through the ashpit door. To replace the grate and carrier reverse the procedure.



### NOTE

*The grate carrier is supported at the front by the catch on the left-hand side only. When correctly positioned the right-hand front leg of the carrier should be behind the stop on the right-hand side of the ashpit and not resting on it. The grate can be easily tilted on the pivot of the carrier when there is no fuel in the boiler.*



### Descaling

If the Agamatic is connected to a "direct" hot water system in a hard water district, the water jacket may have to be descaled periodically as advised by your heating engineer or qualified plumber. Cleaning covers are accessible when the outer casing of the boiler is removed.

### Insulation

The Agamatic is a very efficient boiler, but much of its efficiency will be wasted unless the hot storage tank or cylinder is thoroughly insulated. In addition, all pipes in which hot water circulates should also be lagged to reduce unnecessary heat losses. We recommend Eeto jackets for tank or cylinder and Fibreglass sectional lagging for pipes.

**PRECAUTIONS TO BE TAKEN WHEN  
THE AGAMATIC IS NOT IN USE**

If the Agamatic is to be let out at a time when there is a danger of frost, the whole water system should be emptied. If the Agamatic is to be let out for a considerable period, all the ashes and dead fuel should be removed and the fire box thoroughly cleaned. Then, after closing the top, turn the thermostat control to "5" to ensure that a constant stream of air passes through the boiler whilst it is not in use.

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**KETLEY, Nr. WELLINGTON, SHROPSHIRE**

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**AGA**



# AGA

## AGAMATIC Solid Fuel BOILER

### Installation Instructions

#### Performance

The Agamatic boiler is intended for domestic hot water supply, or heating, or a combination of the two.

The heating requirements of the system must be within the output of the boiler and as a guide, the maximum size of system the boiler should serve is:—

**Heating only**— 16 m<sup>2</sup> (175 sq. ft.) of radiator surface (including unlagged pipework).

**Combined heating and D.H.W.**— 190 litre (42 gals.) indirect cylinder plus 9.2 m<sup>2</sup> (100 sq. ft.) of radiation (including unlagged pipework).

or

245 litre (54 gals.) indirect cylinder plus 7 m<sup>2</sup> (75 sq. ft.) of radiation (including unlagged pipework).

**Domestic hot water only**— 190 litre (42 gals.) to 360 litre (80 gals.) cylinder.

These examples are based on a radiation surface emission factor of 0.5 kW/m<sup>2</sup> (160 Btu/h/ft<sup>2</sup>) and average domestic hot water requirements.

A drain cock should be fitted at the lowest point of the system.

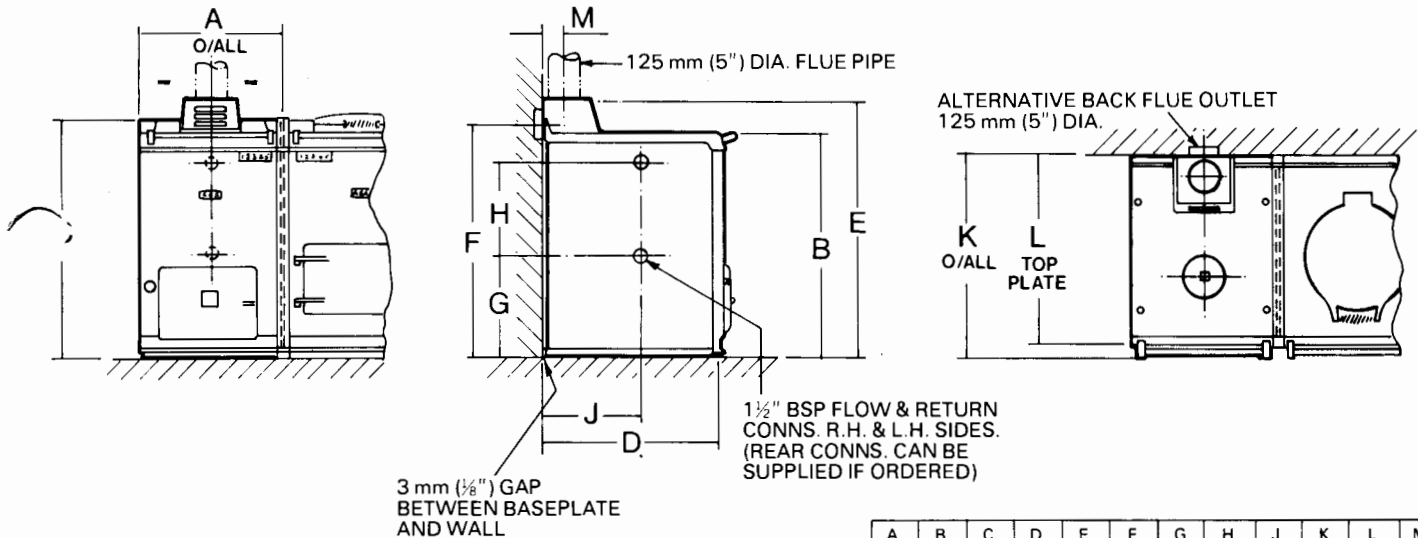


FIG. 1 GENERAL DIMENSIONS

	A	B	C	D	E	F	G	H	J	K	L	M
mm	540	850	888	679	970	865	385	354	377	756	698	83
ins.	21 1/4	33 1/2	35	26 3/4	38 3/8	34 1/16	15 1/2	13 1/16	14 7/8	29 3/4	27 1/2	3 1/4

### The Hot Water System

The cylinder should be fixed vertically and as near as possible to the boiler. Flow and return pipes should not exceed 10 m (30 ft.) each in length and pipes longer than 5 m (15 ft.) should be lagged.

The cylinder should be lagged unless it is within 2 m (8 ft.) of the boiler. If the cylinder is less than 190 litre (42 gals.) capacity or is close to the boiler, it is an advantage to instal a towel rail.

An indirect cylinder must be used if radiators are included in the system and it is recommended in any case. In soft water districts it prevents discolouration of water and in hard water districts it prevents scale formation in the boiler.

An open vent pipe must be fitted to the primary circulation.

### The Site

Attention is drawn to the requirements of the current Building Regulations in England and Wales, the London Building (Amendment) Act in the area of the former L.C.C., the Scottish Building Regulations, the Model By-laws in Northern Ireland and Local Authorities.

### Air Supply

Provision must be made for the introduction of a permanent air vent into the room where the boiler is installed.

This vent should be either direct to outside air or to an adjacent room which itself has a permanent air vent of at least the same size direct to outside air.

The minimum effective area of the air vent in the outside wall is:—  
130 cm<sup>2</sup> (20.0 in<sup>2</sup>).

### Effect of an Extract Fan

If there is any type of extract fan fitted in the same room as the boiler, extra air may be required depending on the capacity of the fan.

### The Hearth

#### (a) *Constructional Hearth*

This hearth, forming part of the building structure, must be capable of carrying the weight of the boiler (preferably solid) and be level having a minimum thickness of 125 mm (5 in.) of non-combustible material.

## INSTALLATION DETAILS

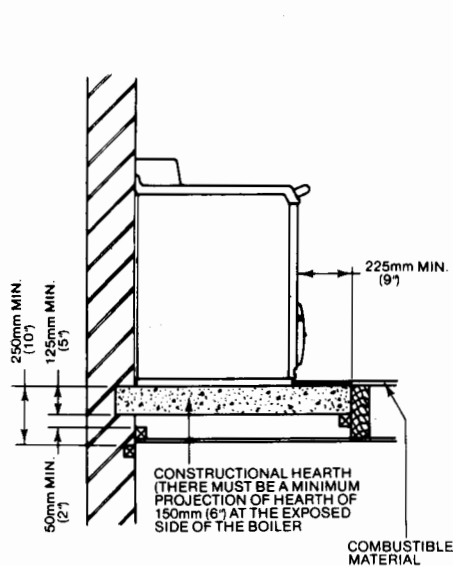


FIG. 2

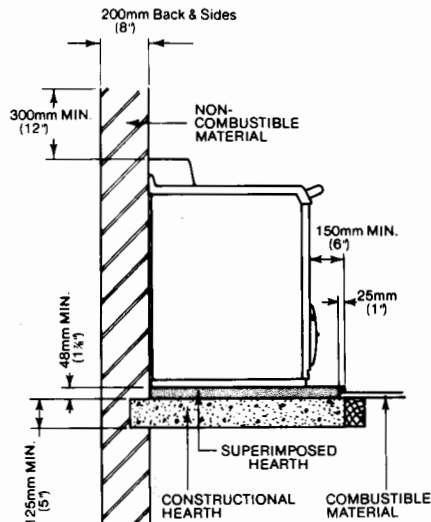


FIG. 3

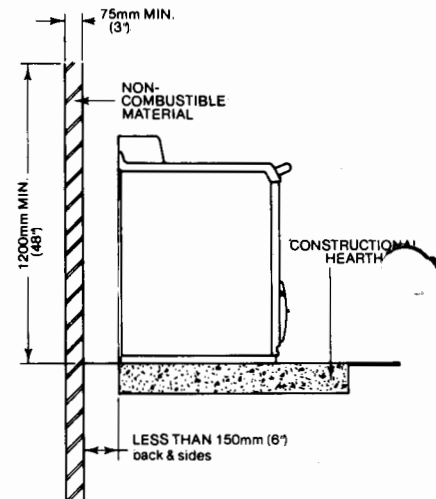


FIG. 4



(b) *Superimposed Hearth*

May be placed upon a CONSTRUCTIONAL HEARTH but have a minimum thickness of 48 mm (1 7/8 in.) of non-combustible material and be level.

This type of hearth does not form part of the building or structure.

(c) The dimensions of a hearth adjoining a floor of combustible material must be such that there is an exposed surface of hearth beyond the appliance, which complies with the minimum dimensions shown in Fig. 2.

In addition, the exposed part of the hearth and the floor itself must not be lower than the covered part of the hearth. See Fig. 2.

(d) If the boiler is installed over a superimposed hearth, a combustible floor must not extend under the hearth any more than the minimum dimensions shown in Fig. 3.

(e) No combustible material other than timber fillets supporting the edges of a constructional hearth where it adjoins a floor must be placed under the hearth within the vertical distance stated in Fig. 2.

i.e. 250 mm (10 in.) minimum from the hearth surface or an air space of 50 mm (2 in.) from the underside of the hearth.

(f) The back and sides of any wall surrounding the boiler must be constructed of a 200 mm (8 in.) thick non-combustible material which must not terminate less than 300 mm (12 in.) above the top of the appliance.

If such a non-combustible wall is not possible, a wall of less non-combustible thickness is allowable but must conform to the minimum dimensions shown in Fig. 4.

### The Flue Pipe

The top outlet connection between the boiler and the chimney flue must be made with a 125 mm (5 in.) diameter cast iron pipe complying with B.S. 41:1973 or mild steel pipe having a minimum thickness of 4.75 mm (3/16 in.). No other flue pipe materials may be used within 1.8 m (6 ft.) of the boiler flue outlet but flue pipe extensions after this dimension are permissible when made of heavy quality asbestos cement complying with B.S. 835:1973.

### The Chimney Flue

The following instructions apply to chimney flues and are extracted from the current Building Regulations. Chimney flues constructed since 1965, will in the main meet the stated requirements.

All newly constructed chimney flues must meet these requirements. Chimney flues erected before 1965 are not subject to the regulations but must be perfectly sound in construction.

1. The chimney flue should be lined and constructed with a non-porous acid resisting material such as socketed kiln-burnt aggregate and high alumina cement or any other British Standard approved liner as specified in the current Building Regulations. Fig. 5.

2. Where two separate flue ways are required within a chimney, each flue must be separated from each other by a minimum thickness of 100 mm (4 in.) of non-combustible solid material excluding the thickness of the flue lining.

3. The lower end of the chimney flue should be fitted with a condensate collecting vessel complete with sealed access door for removal of the vessel. Fig. 6.

## FLUE ARRANGEMENTS

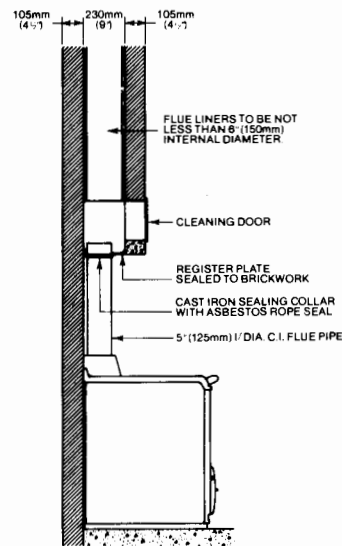


FIG. 5

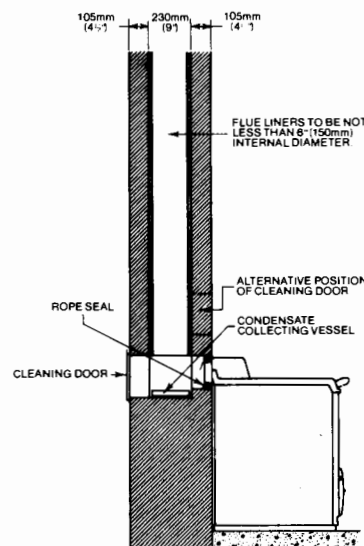


FIG. 6



4. Flues made entirely of standard flue pipe are not recommended but are permitted by the Building Regulations which should be consulted before installation to ensure complete compliance. Factory made insulated metal chimneys are permitted providing they comply with B.S. 4543:1970 and installed to section L.22 of the current Building Regulations.

5. No flueway in a chimney (or flue pipe) shall communicate or have access with more than one room.

6. The outlet of the chimney flue (or flue pipe) must terminate at least 1 m (3.25 ft.) above the highest contact point between chimney (or flue) and roof.

Where the roof has a pitch on both sides of the ridge of not less than 10° with the horizontal and the chimney (or flue) passes through the roof, its minimum vertical projection from the ridge to the top of the

chimney shall be 600 mm (24 in.) excluding any chimney pot or flue terminal.

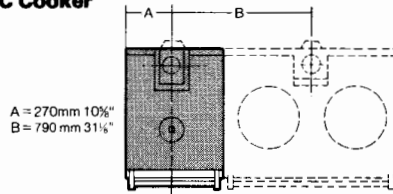
7. Where there is an openable window, skylight or ventilation air inlet or similar opening in the roof, the chimney (or flue pipe) termination must be at least 1 m (3.25 ft.) vertically above it excluding any chimney pot or flue terminal and there is not more than 2.3 m (7.5 ft.) of horizontal air space between the same and the chimney.

8. The boiler and an Aga solid fuel cooker may discharge into the same chimney flue providing they are installed in the same room. The cooker should enter the chimney flue at a point higher than the boiler entry.

9. A cleaning door must be provided for chimney sweeping and all cavities and pockets filled in.

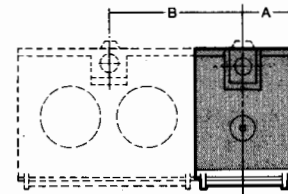
**FIG. 7**  
**FLUE CONNECTION**  
**DIMENSIONS WITH**  
**AN AGA COOKER**  
**ALONGSIDE**

**Model C Cooker**



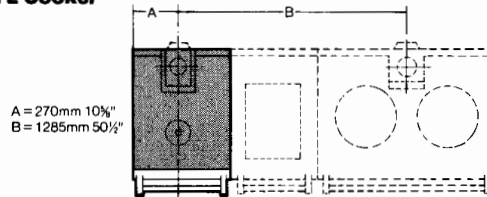
A = 270mm 10½"  
B = 790 mm 31¼"

Note: Agamatic Boilers and  
Aga Cookers have  
top or back flue connection.

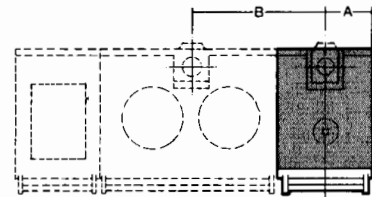


A = 270mm 10½"  
B = 735mm 29"

**Model E Cooker**



A = 270mm 10½"  
B = 1285mm 50½"



A = 270mm 10½"  
B = 735mm 29"



**Agaheat Appliances**

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