



from **AGA**

**Installation Instructions for  
Rayburn 200SFW and Rayburn  
212SFW Solid Fuel Cooker**



**Consumer Protection**

As responsible manufacturers we take care to make sure that our products are designed and constructed to meet the required safety standard when properly installed and used.

**IMPORTANT NOTICE: PLEASE READ THE ACCOMPANYING WARRANTY.** Any alteration that is not approved by AGA could invalidate the approval of the appliance, operation of the warranty and could affect your statutory rights.

**All local regulations including those referring to National and European standards need to be complied with when installing the appliance.**

**Important**

This appliance may contain some of the materials that are indicated. It is the Users/Installers responsibility to ensure that the necessary personal protective clothing is worn when handling,

where applicable, the pertinent parts that contain any of the listed materials that could be interpreted as being injurious to health and safety, see below for information.

**Firebricks, Fuel beds, Artificial Fuels** - when handling use disposable gloves.

**Fire Cement** - when handling use disposable gloves.

**Glues and Sealants** - exercise caution - if these are still in liquid form use face mask and disposable gloves.

**Glass Yarn, Mineral Wool, Insulation Pads, Kerosene/Gas Oil** - may be harmful if inhaled, may be irritating to skin, eyes, nose and throat. When handling avoid inhaling and contact with skin or eyes. Use disposable gloves, face-masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that parts are securely wrapped.

**PERFORMANCE**

**REMEMBER, when replacing a part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been authorised by AGA.**

The Rayburn 200SFW is intended to be used for cooking only. The Rayburn 212SFW is intended to supply heating for cooking and domestic hot water.

The Rayburn 200SFW has been tested using Ancit and wood logs. The nominal heat output of this appliance is Ancit 7.1 kW and wood logs 5.8 kW.

The Rayburn 212SFW has been tested using Ancit and wood logs. The nominal heat output of this appliance is Ancit 6.8 kW and wood logs 6.5 kW.

Ancit provides about 2.6 kW to hot water and 4.3 kW to the appliance. Wood provides about 2.0 kW to hot water and 4.5 kW to the appliance. Other fuels may give a slightly different result.

Weight of Rayburn 212SFW - 300 Kgs.  
Weight of Rayburn 200SFW - 240 Kgs.

There is no requirement for an electrical power supply.

Flue gas mass flow g/s 5.3.

The mean flue gas temperature of the Rayburn 200SFW directly downstream of the flue spigot at nominal heat output is 200°C.

**WARNING**

THE ASHPIT DOOR AND FIREBOX DOORS MUST BE LOCKED CLOSED AT ALL TIMES DURING NORMAL USE, EXCEPT WHEN LIGHTING OR RE-FUELLING

FLUE GAS MASS FLOW			MEAN FLUE GAS TEMP.
FUEL	MODEL		
WOOD	200	5.3 g/s	199°C
ANCIT	200	5.6 g/s	196°C
WOOD	212	5.9 g/s	203°C
ANCIT	212	5.9 g/s	207°C

The mean flue gas temperature of the Rayburn 212SFW directly downstream of the flue spigot at nominal heat output is 203°C.

The cooker fully meets the requirements of BS EN 12815 : 2001 and A1: 2004 and is fully approved by the HETAS Ltd Approval Scheme.

Air for combustion within the firebox and the rate of burning is determined by the manually operated spinwheel control on the ashpit door and flue damper.

With normal usage in 24 hours continuous burning the Rayburn 212SFW has an approximate output of 100 gallons of hot water. To provide 2 or 3 hot baths at intervals and normal household requirements, the following conditions must be fulfilled:-

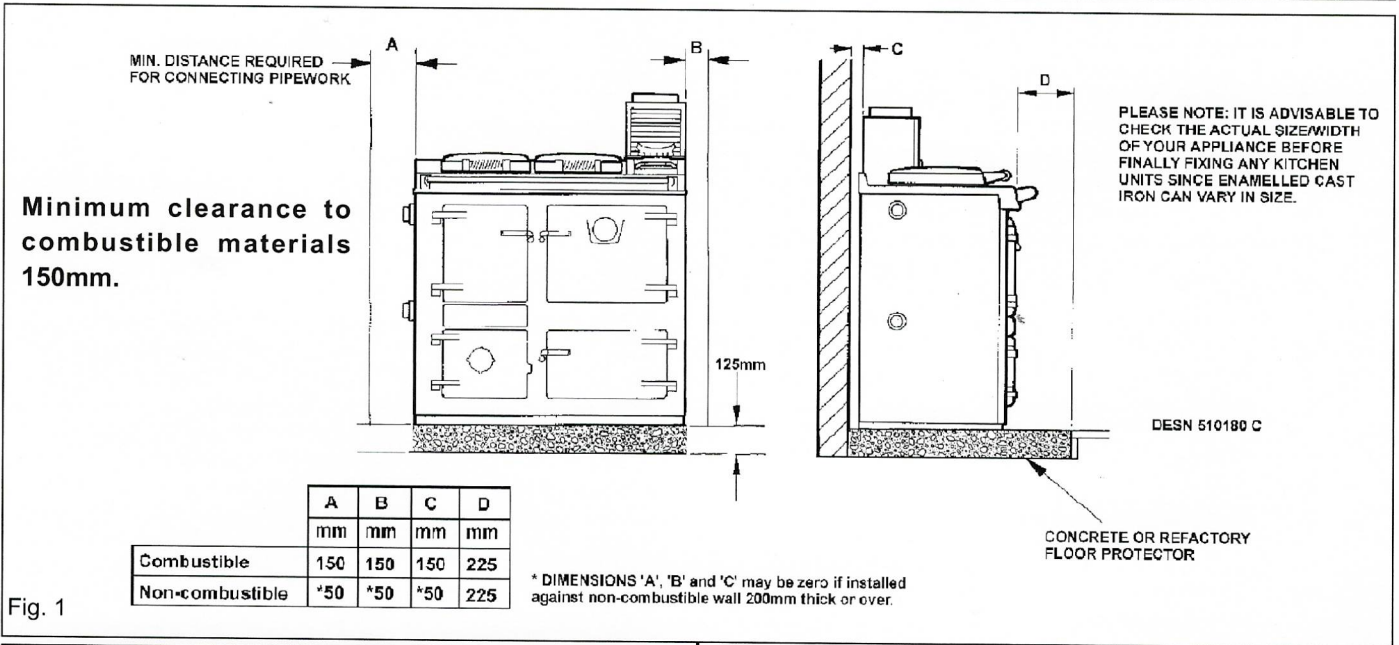
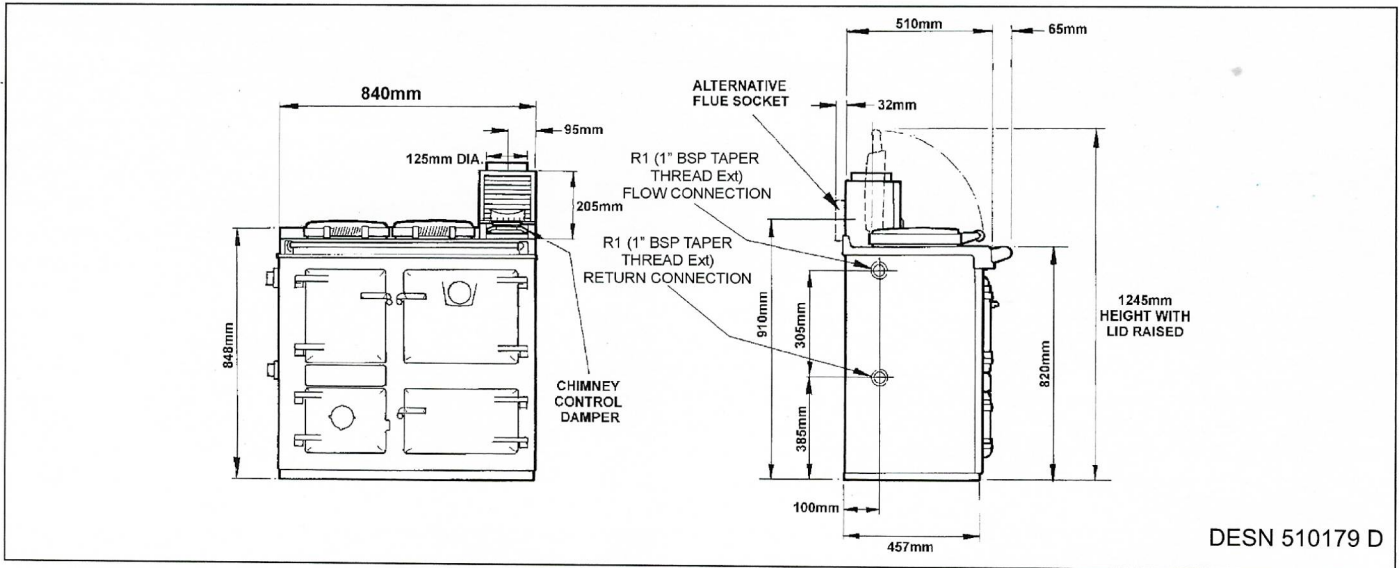


Fig. 1

## HOT WATER SYSTEM

**Rayburn 212SFW** - It is recommended that a 140 litre (30 galls) indirect hot water storage cylinder of the double feed type, (e.g. manufactured by Albion Cylinders) complying with BS 1566 Part 1 : DF Type 8 should be lagged and fixed vertically as near as possible to the cooker.

The maximum water pressure is 1.75 bar.

The water capacity of the boiler is 7 litres.

The 28mm minimum diameter primary flow and return pipes must not exceed 10m in length and pipes longer than 5m must be lagged.

Ensure that the flow pipe has an open vent and rises continuously from the boiler to the cylinder to ensure good gravity circulation.

The water draw-off pipes to the taps must be dead-leg connection from the vent/expansion pipe.

A towel rail of not more than 0.5m<sup>2</sup> heating surface may be heated providing the flow and return pipes are not more than 5m each in length, and provided the cylinder and towel rail are lagged. When the hot water storage cylinder is very closely coupled to the boiler, a towel rail is advisable as a heat leak, and lagging should not be applied. A radiator is not recommended.

To obtain the boiler outputs the fire must be idled overnight, and daytime cooking take place.

All installations must be fitted with a drain tap at the lowest point of the system.

**IMPORTANT NOTE:** THESE INSTRUCTIONS MUST BE STRICTLY OBSERVED. IF THEY ARE DISREGARDED (E.G. AN UNLAGGED OR OVERSIZE CYLINDER), CONSUMPTION OF FUEL MAY BE EXCESSIVE, AND THE COOKER DAMAGED BY OVERFIRING.

In some circumstances it may be possible to overheat the appliance and the water inside will boil. This will be evident by the sound of a knocking noise coming from the appliance and pipes around the house. If this occurs close off all air controls and manually start the central heating pump if fitted. Opening the oven doors and hotplates covers will help to release heat from the appliance. Be aware that steam and boiling water will be expended from any open vent from the heating system probably in the roof space at the expansion tank.

## THE BOILER

**Rayburn 212SFW** - Unscrew the sheet metal cover plate on the side of the cooker and remove the insulating material from behind it.

Joint the flow and return connections to the boiler, replace the insulating material and screw on the cover plate and collar.

The boiler is now ready for connection to the hot water cylinder.

**IMPORTANT:** LIFT OUT THE HOTPLATE AND CEMENT SEAL THE JOINT BETWEEN THE BOILER FACE AND IT LOCATING FACE ON THE FIREBOX SIDES WITH FIRE CEMENT. RENEW ANY BRICKWORK CEMENTED JOINTS THAT MAY HAVE OPENED IN TRANSIT.

## PREPARATION OF SITE

The non-combustible hearth must be solid and level and together with the walls adjacent to the cooker and chimney, conform to current Building Regulations.

The cooker and chimney flue installation should be in accordance with the relevant recommendations of BS8303, BS. 6461 Part 1 and BS. 7566 Parts 1 to 4.

**Rayburn 212SFW** - The boiler installation section must also be in accordance with the byelaws of the local Water Undertaking and any relevant requirements of the Local Authority.

## COOKER POSITION

When the cooker is installed in a recess it must be 'freestanding' and not built-in solid at the sides.

**Where the cooker is to stand in a recess or against a wall which is to be tiled, in no circumstances should the tiles overlap the cooker top plate.**

Ensure that any combustible material e.g. kitchen furniture is spaced away from the cooker to the recommended distances. See Fig. 1. The work surface however, may be fitted to the top plate on both sides.

### **NOTE: SMOKE/SMELL EMITTED DURING INITIAL USAGE**

Some parts of the cooker have been coated with a light covering of protective oil, this may cause smoke/smell to be emitted, and is normal and not a fault with the appliance, it is therefore advisable to open doors and or windows to allow for ventilation. Lift the insulating lids to prevent staining the linings.

## AIR SUPPLY

**Rayburn 200SFW and 212SFW:** Provision must be made for additional ventilation. A permanent unobstructed air vent having a minimum effective area of 11cm<sup>2</sup> must communicate to outside air or an adjacent room which in turn has a permanent vent of at least the same size to outside air.

If a flue draught stabiliser is fitted in the flue this vent size must be increased to a minimum 23.5cm<sup>2</sup>. If this appliance is used with an additional appliance of a similar type then the air supply must be adequate for both appliances in accordance with the Building Regulations.

Any air inlet grilles must be positioned so that they are not liable to blockage.

It is not permissible to use an air extraction device in the same room as the appliance, unless additional ventilation is provided to prevent any adverse effect on the flue.

### **Effect of Extractor Fan**

Avoid if possible the installation of an extractor fan in the same room as the appliance or the room where the permanent air vent is located.

Compensating extra air inlets must be introduced equivalent to the capacity of the fan wheel when fitted.

## THE CHIMNEY

The minimum chimney draught requirement for the 200SFW at nominal total heat output is 12 Pa.

The minimum chimney draught requirement for the 212SFW at nominal total heat output is 12 Pa.

The mean flue gas temperature of the Rayburn 200SFW directly downwards of the flue spigot at nominal heat output is 200°C.

The mean flue gas temperature of the Rayburn 212SFW directly downwards of the flue spigot at nominal heat output is 203°C.

Flue gas mass flow g/s 5.3.

The appliance is not suitable for installation in a shared flue system.

### Checking Existing Chimney

The internal and external location of the chimney should be checked **before** the appliance is installed and rectification made where necessary to prevent leakage or porosity. The soundness of the chimney which should have a minimum flue dimension of 150mm can be confirmed by smoke testing.

Advice on the test method can be obtained from HETAS Ltd.

When repairing or re-using existing chimneys it is recommended that the building control officer be consulted before the commencement of work with particular attention to the chimney height and its termination.

**The chimney MUST be swept before installation.**

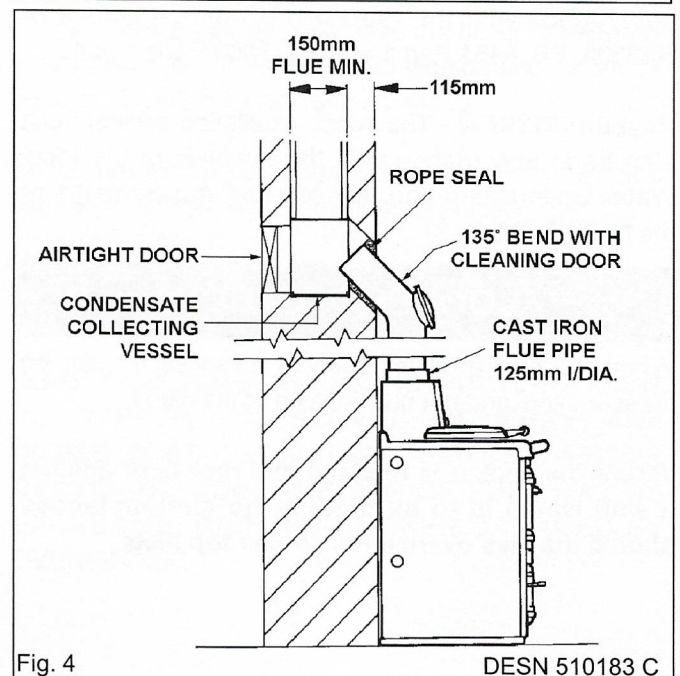
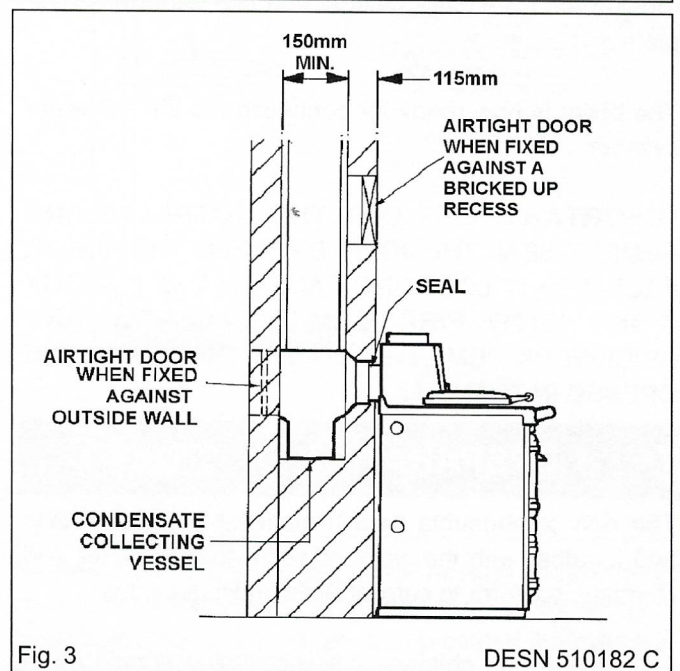
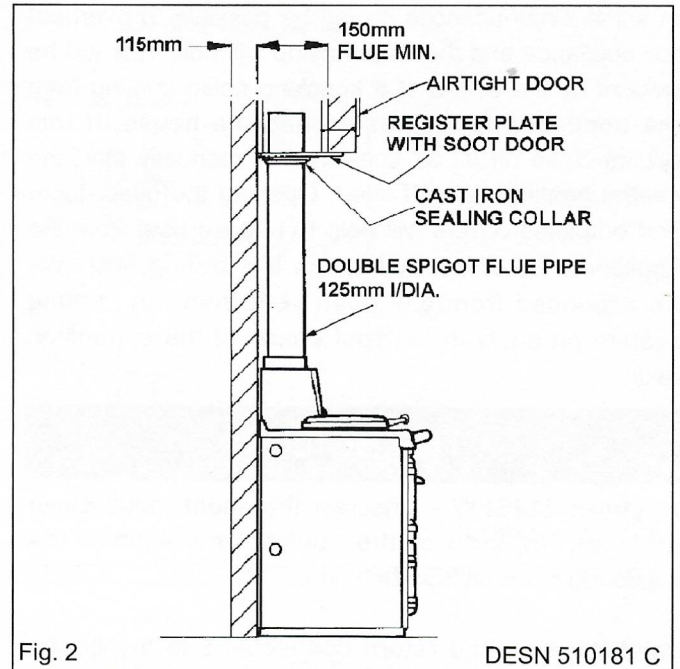
### Erecting New Chimney

The flue through the chimney should be formed with pre-cast moisture and acid resistant liners with a minimum internal diameter of 150mm diameter and all in accordance with the current Building Regulations (England and Wales) and in Scotland the Building Standards (Scotland) (Consolidation) Regulations and the Codes of Practice for chimneys and flues BS. 6461 Part 1 and BS. 7566 Parts 1 to 4.

Ensure the chimney liners are free of projecting internal building jointing composition before the appliance is installed.

### Factory-Made Insulated Chimneys

It is recommended the chimney be ceramic lined and comply with BS. 4543: Part 2.



The minimum diameter for a straight chimney is 150mm and there should not be more than two bends of 45° from vertical.

IN ALL TYPES OF CHIMNEYS THE MINIMUM HEIGHT FOR CORRECT OPERATION OF THE CHIMNEY IS 4.5m AND SHOULD TERMINATE ABOVE THE ROOF IN ACCORDANCE WITH REGIONAL STATUTORY REQUIREMENTS RECOMMENDED FLUE DRAUGHT - 12 Pa MINIMUM. THE APPLIANCE SHOULD BE INSTALLED AND CONFORM TO THE CURRENT CODES OF PRACTICE FOR INSTALLATION OF DOMESTIC HEATING AND COOKING APPLIANCES BURNING SOLID FUEL - BS 8303.

**ALWAYS ADVISE THE USER TO CLEAN THE COOKERS FLUES IN ACCORDANCE WITH THE OPERATING INSTRUCTIONS AND TO HAVE THE CHIMNEY SWEEPED AT A MINIMUM OF 12 MONTHLY INTERVALS AFTER THE COOKER IS COMMISSIONED.**

## COOKER FLUE CONNECTION

The position of available types of flue layouts are shown in Figs. 2, 3 and 4, the cooker flue chamber is adaptable to providing either top or back flue outlets, by means of the reversible loose socket.

### a) Rear Flue Outlet

This must only be used where there is a brick flue immediately behind the cooker. Provision must be made for a condensate collecting vessel and cleaning door. See Fig. 3.

**EXTENDED HORIZONTAL FLUE PIPE CONNECTION IS ALLOWED UP TO A MAXIMUM OF 150mm IN LENGTH.**

**NO BEND CONNECTIONS ARE ALLOWED.**

### b) Top Flue Outlet

The cooker should be connected to the main flue via a 125mm minimum diameter cast iron flue pipe or appropriately internally/externally vitreous enamelled mild steel pipe and be sealed to the cooker flue chamber with soft rope and fire cement. Any bends in the flue pipe must not be less than 135° (45° from vertical) and be complete with a cleaning door.

## FLUE LAYOUTS

In Fig. 2 the cooker is installed in an existing recess. There must be a clearance of not less than 150mm between the top of the flue pipe and any overhanging brickwork.

Any cavities or pockets above the register plate should as far as possible be filled and if necessary the flue pipe should be extended into the throat of the chimney and a soot door for chimney sweeping.

If a flue liner or insulated chimney is used, the size should not be less than 150mm.

In Fig. 3 the cooker is connected direct to a brick flue. Horizontal pipe runs between cooker and brick flue **must not** be used.

In Fig. 4 the cooker is connected to an existing brick flue with a length of flue pipe. Square bends and horizontal runs **must not** be used. There must be a cleaning door at every bend.

**NOTE: WHATEVER METHOD OF INSTALLATION IS EMPLOYED. AIR MUST NOT BE ALLOWED TO ENTER THE CHIMNEY EXCEPT THROUGH THE COOKER ALL JOINTS MUST BE AIR-TIGHT.**

If the chimney is unlined, and there is any doubt about its condition, it should be lined in accordance with current Building Regulations.

**PROVISION MUST ALWAYS BE MADE FOR SWEEPING THE CHIMNEY.**

**IMPORTANT: CEMENT TYPE PIPES AND FITTINGS MUST NOT BE USED WITHIN 2m OF THE COOKER. CHIMNEYS OF PLAIN PIPE ARE NOT RECOMMENDED BUT CERTAIN PROPRIETARY MAKES OF INSULATED CHIMNEY ARE SUITABLE.**

## HIGH UPDRAUGHTS

Tall chimneys may develop excessively high updraughts which prevent the appliance operating correctly.

It is recommended that a proprietary brand adjustable flue draught stabiliser having an openable cross sectional area of 126cm<sup>2</sup> be fitted above the flue pipe connection either in the brickwork or into a right angle 'T' fitting in the flue pipe positions that will not inconvenience appliance operation or maintenance.

## INSTALLATION

Place the cooker in the intended position and lift out the surface ground hotplate, checking that the joint between the underside of the hob and the top of the cooker are intact.

If the appliance is installed near combustible material then as well as adhering to minimum clearances in Fig. 1 additional non-combustible insulation must be fitted to the wall to protect the area around the flue and fluebox. The insulation must reach a minimum distance of 150mm either side of the flue/flue box and follow the line of the flue. The minimum specification for this material is Superwool 607 LTI with a density of 320kg/m<sup>3</sup>, a thickness of 10mm and a self finish. There must be a minimum 16mm air gap between the insulation board and an adjacent combustible wall surface. A higher specification material may be used but the air gap must be maintained.

Any joints which have opened should be made good with fire cement provided.

Replace the hotplate making sure that it is seating evenly on the soft rope and that it is approximately 1.5mm proud of the enamelled top plate, with an equal space all around.

Connect pipework to boiler flow and return tapplings.

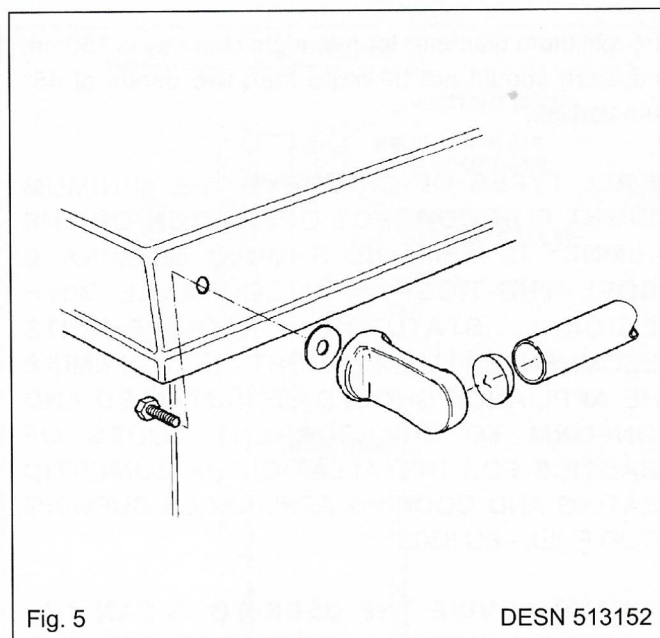


Fig. 5

DESN 513152

Fit the flue chamber which should be given a 1mm smear of fire cement on the underside then screwed to the cooker. Make sure there is a good seal between the flue chamber and the cooker top (if there is an ingress of air it can affect the flue draught and proper working of the cooker). Before the fire cement hardens remove any surplus with a damp cloth then polish with a dry cloth.

Open the firebox and ashpit doors and check that the bottomgrate is in position. Operate the riddling lever to ensure the bottomgrate operation.

Failure to do so can result in the enamel surface being permanently marked.

The handrail brackets are held on the front end of the cooker top-plate casting. Remove the travel nuts and replace with the handrail brackets ensuring the fibre protecting washers are in position. Insert the handrail with fitted endcaps into the brackets, positioning them correctly and tighten the locating bolts. (See Fig. 5).

## TESTING AND COMMISSIONING

After completing the installation, the Heating Contractor should demonstrate to the user, the operation of the appliance and the routine flue operating method.

1. Check that the system is full of water and free from air pockets. (**Rayburn 212SFW only**).
2. Select and install the appropriate burning grate as required by the customer (see Users Instructions for method).
3. When lighting pull the flue chamber damper open to maximum.
4. Add paper and sticks with a small quantity of fuel through the fuelling aperture onto bottomgrate and close the firebox door.
5. Open ashpit door, ignite fuel and close ashpit door when fuel is well alight with spinwheel on ashpit door at required setting.
6. Allow the cooker to heat up gradually at first time lighting.

**NOTE:** The water capacity of the boiler is 7 litres

## FIREBRICK REPLACEMENT

The firebricks fitted to the Rayburn Cookers are of first quality manufacture, and providing the cooker has been installed and used correctly will have a reasonable life. They are, however, expendable items and in time will require renewal.

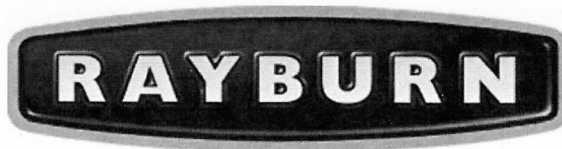
The renewal of firebricks is not a major operation and can be carried out by the average person.

Replacement bricks either in sets or singly can be obtained from your Rayburn distributor.

**LEAVE INSTRUCTIONS FOR FUTURE USE**

For further advice or information contact your  
local distributor/stockist

With AGA Rangemaster's policy of continuous  
product improvement, the Company reserves the  
right to change specifications and make  
modifications to the appliance described at any  
time.



from  AGA

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[www.rayburn-web.co.uk](http://www.rayburn-web.co.uk)  
[www.agacookshop.co.uk](http://www.agacookshop.co.uk)



from **AGA**

**Users Instructions for Rayburn  
200SFW and Rayburn 212SFW  
Solid Fuel Cooker**



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**Important**

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necessary personal protective clothing is worn when handling, where applicable, the pertinent parts that contain any of the listed materials that could be interpreted as being injurious to health and safety, see below for information.

**Firebricks** – when handling use disposable gloves.

**Fire Cement** – when handling use disposable gloves.

**Glues and Sealants** – exercise caution – if these are still in liquid form use face mask and disposable gloves.

**Glass Yarn, Mineral Wool, Insulation Pads, Kerosene Oil** – may be harmful if inhaled, may be irritating to skin, eyes, nose and throat. When handling avoid inhaling and contact with skin or eyes. Use disposable gloves, face-masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that parts are securely wrapped.

The user should obtain confirmation from the installer that the chimney is of sound airtight construction, is clear of obstructions and has been swept before installation.

The Rayburn 200SFW has been designed to burn a variety of solid fuels and thereby provide heating facilities for cooking. The Rayburn 212SFW also provides domestic hot water.

The cooker temperatures are manually controlled by the spinwheel on the front of the ashpit door, and in conjunction with an adjustable flue chamber damper plate to control the chimney draught.

The appliance meets all the requirements of BS EN 12815: 2001 and A1 : 2004 and is fully approved by the HETAS Ltd. Appliance Approval Scheme.

**WARNING: HOT SURFACES**, use the tool supplied to operate this appliance. It is recommended to use the heatproof glove supplied when raising the dome lids to use the hotplate. Replacement gloves can be obtained from the AGA Shop

**WARNING**

**THE ASHPIT DOOR AND FIREBOX DOORS MUST BE LOCKED CLOSED AT ALL TIMES DURING NORMAL USE, EXCEPT WHEN LIGHTING OR RE-FUELLING**

The Rayburn 200SFW and Rayburn 212SFW has been tested using Ancit and wood logs for closed appliances between 20g and 140g and wood logs. Other fuels are commercially available and may give similar results.

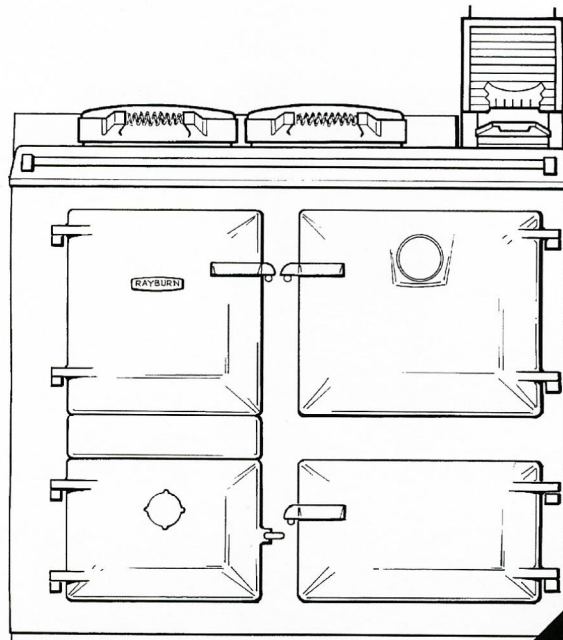
**Recommended Solid Fuels should be used**

Manufactured: Phurnacite Plus, Coalite Nuts, Maxibrite, Phurnacite, Sunbrite Doubles, Blazeprite, Taybrite and Supacite, Wood logs (seasoned) and Ancit.

Natural: Anthracite Large Nuts

**WARNING: PETROLEUM COKE MUST NOT BE USED.**

Oversize fuel lumps should be broken down to size. Stone and other foreign bodies should be removed when fuelling.



**IMPORTANT**  
This cooker is intended to run in a continuously aight condition at all times, at low fire rate when idling, unless servicing is required.

Fuels should be stored under cover, particularly manufactured fuels which must be kept dry. Wet kitchen refuse should not be burned and the appliance should not be used as an incinerator.

**Rayburn 200SFW and 212SFW:** Provision must be made for additional ventilation. A permanent unobstructed air vent having a minimum effective area of 11 cm<sup>2</sup> must communicate to outside air or an adjacent room which in turn has a permanent vent of at least the same size to outside air.

If a flue draught stabiliser is fitted in the flue this vent size must be increased to a minimum 23.5cm<sup>2</sup>. If this appliance is used with an additional appliance of a similar type then the air supply must be adequate for both appliances in accordance with Building Regulations.

Any air inlet grilles must be maintained so that they are free from blockage.

## DOOR OPERATION

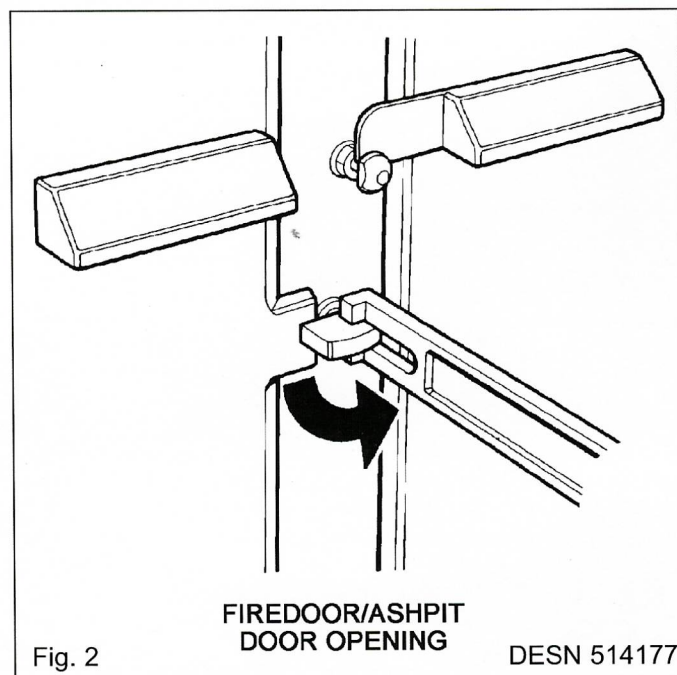
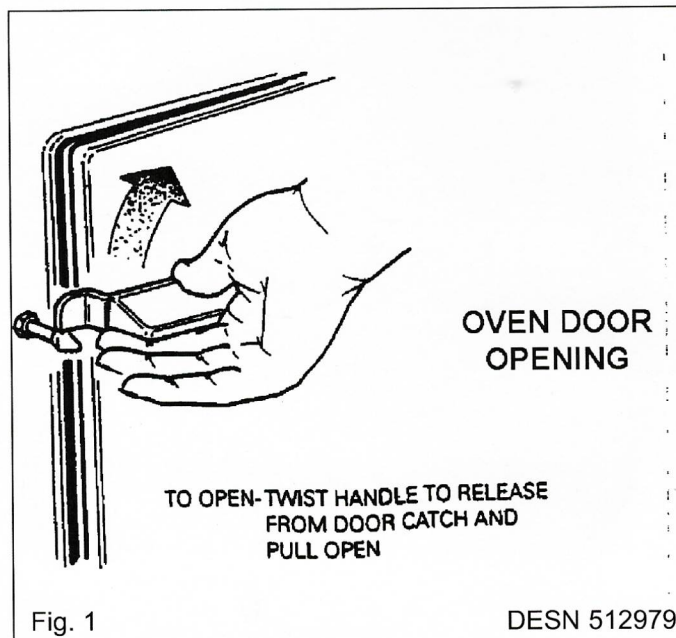
### OVEN DOOR OPERATION - SEE FIG. 1

To open the doors. Twist the handle slightly to lift up the door catch from the locking spindle and pull the door open.

To close the doors. Gently push the door shut until the door catch makes contact with the locking spindle.

### FIRE DOOR/ASHPIT DOOR OPERATION

The fire door and ash pit door are kept closed by a turn screw. A tool is supplied to operate these when hot and they can be adjusted to ensure both these doors close tightly. **IT IS IMPORTANT TO ENSURE PROPER CLOSURE OF THESE DOORS TO PREVENT OVERFIRING.**



## LIGHTING THE FIRE - USING WOOD AND PAPER

1. Check the flue pipe is free of blockage.
2. Open firebox door.
3. Open ashpit door.
4. Remove ashpan.
5. De-ash (Fig. 3) also see page 3 **De-ashing** and remove any dead fuel from bottomgrate as described under '**Removal of Clinker and Bottomgrate**'.
6. Replace ashpan.
7. Open flue chamber to maximum (Fig. 4).
8. Lay a liberal supply of wood and paper on top of the bottomgrate together with a small quantity of fuel and light.
9. **Close and lock the ashpit door** with the spinwheel control open.
10. **Close and lock the firedoor.**
11. With fire established, open firebox door and fill firebox with fuel up to the bottom of the firedoor opening. **Close and lock the firebox door.** Push flue chamber damper back to position which has been found to give desired burning rate.

## LIGHTING THE FIRE - USING A POKER

1. Check flue pipe is free of blockage.
2. Open firebox door.
3. Open ashpit door.
4. De-ash (Fig. 3) and insert flay bayonet type gas poker on top of bottomgrate.
5. Remove ashpan and empty (Fig. 5).
6. Open flue chamber damper to maximum (Fig. 4).
7. Lay a 75-100mm (3"-4") shallow depth of fuel onto the bottomgrate and light gas poker.
8. Close the ashpit and firebox door as far as possible - spinwheel control open.
9. When the fuel is well alight, extinguish and remove the gas poker, replace the ashpan, then **close and lock the ashpit door** with the spinwheel control open, **close the firedoor.**
10. With the fire established, open the firebox door and fill firebox with fuel up to the bottom of the firedoor opening. **Close and lock the firebox door.** Push the flue chamber damper back to position which has been found to give best results. Set spinwheel control to give desired burning rate.

## CONTROL

1. The fire controlled by using the spinwheel on the ashpit door to govern air supply.
2. The adjustable flue chamber damper is for reducing the chimney draught, and the more it can be closed, the easier the cooker is to control. The line markings on the flue chamber damper enable you to repeat the best settings to suit your chimney, from **No.1** in a closed position to **No.6** when fully open.

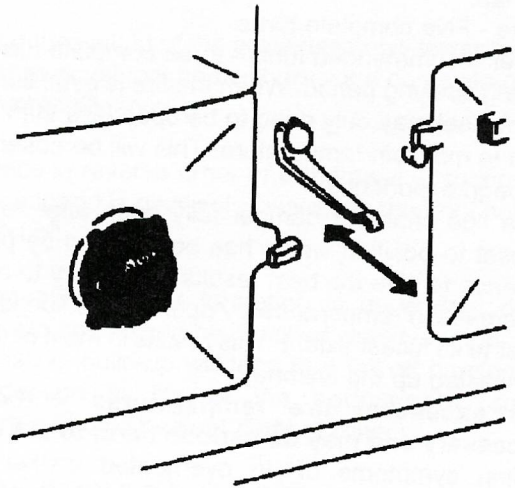


Fig. 3

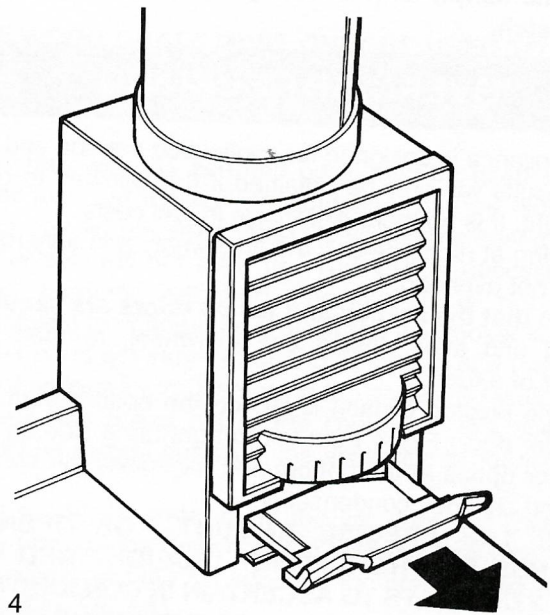


Fig. 4

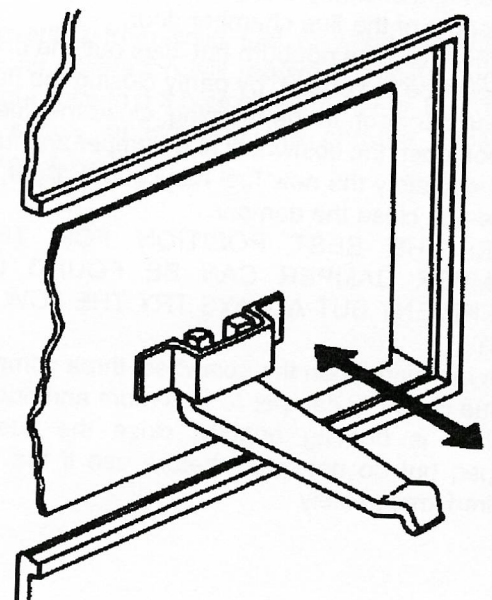


Fig. 5

## Control Setting

Set spinwheel open which does not require to be open more than:

1. Coke - Five complete turns.
2. Other recommended fuels - three complete turns during cooking period. When the fire is established the spinwheel may only need to be open less than one turn to maintain temperature. This will be observed through experience.

Set the flue chamber damper fully open after refuelling and reset to position which has been found by practical experience to give the best results. Do not try to obtain a fast increase in temperature by opening the flue chamber damper to its fullest extent. This results in most of the heat being wasted up the chimney.

**Avoid excessive fire temperatures - they are unnecessary and may do serious harm to the cooker.** The first symptoms of an overheated cooker is the formation of clinker (melted ash) which will damage the firebricks.

Damaged firebricks should be replaced as soon as possible but may be temporarily repaired with fire cement. **Keep the ashpit door securely closed with the front plate catch.**

## OVERNIGHT BURNING

The appliance is designed for continuous burning and the best results will only be obtained if it is allowed to burn overnight. It is no more expensive in fuel costs.

Last thing at night, de-ash the fire, empty and fully refuel but do not overload.

**Ensure that the firebox and ashpit doors are securely closed** and after closing the spinwheel, re-open it a quarter of a turn.

Turn the pivoted dilution lever (on the bottom front flue chamber door) Fig. 4 from left to right hand side so that the door opens at the bottom and minimises the burning rate and chimney condensation.

**NOTE: THE PRECISE AMOUNT OF OPENING DEPENDS ON THE CHIMNEY DRAUGHT AND MAY TAKE 2 OR 3 DAYS TO ASCERTAIN IN CONJUNCTION WITH THE TYPE/CONDITION OF FUEL BEING BURNT.**

1. If the fuel in the firebox is exhausted prematurely, the overnight chimney draught must be reduced by further opening of the flue chamber door.
2. If the fuel does not burn but 'dies out' the draught should be increased by partly closing the flue chamber door. In the morning, close the flue chamber door, open the spinwheel and damper and fuel the fire. Immediately the new fuel has caught alight, riddle the fire and close the damper.

**NOTE: THE BEST POSITION FOR THE FLUE CHAMBER DAMPER CAN BE FOUND ONLY BY EXPERIMENT BUT ALWAYS TRY THE LOW SETTING FIRST.**

In the morning, open the spinwheel three complete turns, the flue chamber damper to maximum and riddle the fire. When it is burning brightly, close the flue chamber damper, but do not refuel before use if the hotplate is required immediately.

## REFUELLING

Open the flue damper fully before opening the firebox door. This will prevent smoke spilling into the room. **Remember to reset the flue damper after refuelling.** If excessive smoke spills into the room, check the flueway and clean thoroughly before continued use of the appliance.

The firebox should be filled to the recommended level of the bottom of the firebox door opening **and the firebox door closed.**

**NOTE: A DEEP BED OF NEWLY CHARGED FUEL ON A LOW FIRE WILL TAKE TIME BEFORE HEAT REACHES THE OVEN, HOTPLATE AND BOILER. WHEN BURNING COAL, PHURNACITE AND ANTHRACITE ALLOW SEVERAL MINUTES FOR THE NEW CHARGE TO IGNITE BEFORE CHANGING THE FLUE CHAMBER DAMPER SETTING.**

**ONCE FUELLING HAS BEEN COMPLETED, CLOSE THE FIREBOX DOOR IMMEDIATELY AND OPEN ONLY FOR REFUELLING CHARGES.**

## DE-ASHING

To de-ash, open the chimney damper to its maximum setting then:

1. Engage the operating tool on the riddling lever knob.
2. Push the operating tool in a back and forth motion about 8-12 times to free the grate of ash.

**ALWAYS DE-ASH BEFORE REFUELLING AT INTERVALS OF THREE TIMES DAILY AT LEAST.**

**NOTE: SHOULD THE BOTTOMGRATE DE-ASHING FAIL TO CLEAR AN ACCUMULATION OF STONES, SHALE OR CLINKER IT MAYBE REMOVED AS DESCRIBED IN SECTION ON REMOVAL OF CLINKER.**

Open the ashpit door to give access to the ashpan which must be emptied regularly (Fig. 3). The class of fuel and cooker usage govern the frequency of refuelling.

**NOTE: DO NOT ALLOW ASH TO ACCUMULATE IN THE ASHPAN UNTIL IT TOUCHES THE UNDERSIDE OF THE BOTTOMGRATE OR IT WILL QUICKLY BURN OUT.**

**Ensure the ashpan is fully home otherwise the ashpit door may not close and lock completely.**

**EXCEPTIONS: WHEN BURNING ANTHRACITE OR PHURNACITE, ALWAYS REFUEL BEFORE EMPTYING ASHPAN AND RIDDLING.**

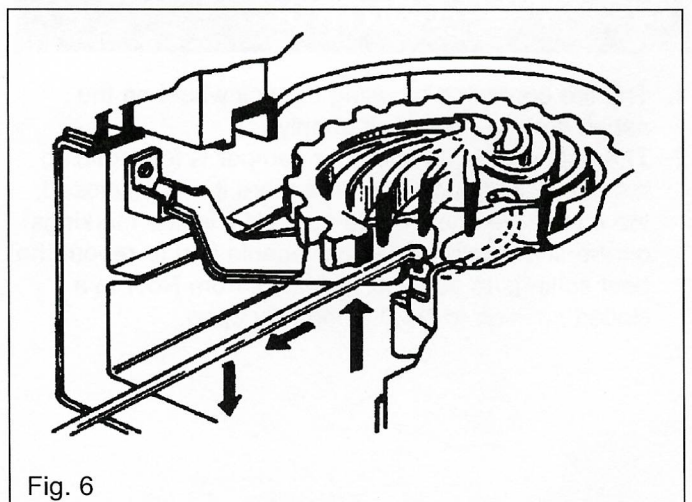


Fig. 6

## REMOVAL OF CLINKER AND BOTTOMGRATE

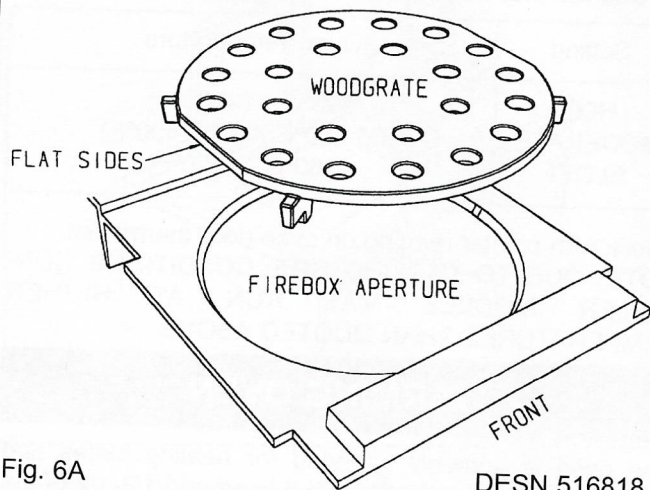


Fig. 6A

DESN 516818

FIREDOOR APERTURE  
WOOD BURNING SETUP

CHROME  
CAPS

8 HOLES

FIREDOOR APERTURE  
SOLID FUEL SETUP

CHROME  
CAPS

6 HOLES

Fig. 6

This item is heavy and may need two hands - wear gloves.

Due to an accumulation of pieces of stone, clinker and shale etc, it may not be possible to pass them through the grate when riddling, and may even cause jamming.

**Allow the fire to burn out and cool down, then open the ashpit door and remove ashpan.**

1. Engage the curved end of the grate assembly removal tool, within the groove in the centre of the bottomgrate support, (See Fig. 6).

2. Raise the front end of the tool slightly and draw the tool forwards so that the grate support moves forward over its support lugs.
3. Taking the weight of the grate assembly lower the front of the removal tool and withdraw the complete grate assembly. Clean out.
4. Replace in reverse order of withdrawal ensuring the grate support is positively located on the front points of the ashpit.

The amount of clinker formation is dependent on the burning rate and should be checked weekly for any build-up. Excessive build-up will lead to a fall off burning rate, and reduction in life of the bottomgrate: so the bottomgrate should be kept clear of clinker.

Two bottomgrates are available for use. One has a slightly raised centre and a serrated edge (See Fig. 6). This is for burning coal and manufactured briquetted smokeless fuel. The other is flat with a number of round holes (See Fig. 6A). **This is for wood burning only.**

**THE WOOD GRATE MUST ONLY BE USED TO BURN WOOD FUEL OTHERWISE DAMAGE MAY OCCUR TO THE GRATE AND THE APPLIANCE.**

The grate with the serrated edge may be used to burn either fuel, but the fuel consumption may be higher on wood and so refuelling intervals will be increased and a bed of ash will not build up. This ash is necessary for wood burning. Although possible, it is not really practicable to change the grate when the cooker is alight. These parts get very hot during operation and there is a risk of serious injury. Removing the grate will result in any burning fuel falling out of the cooker so this operation should be carried out when the appliance is not alight.

To fit the wood grate, open the fire door and insert the grate through the door opening with the four legs facing downwards and the flat edges of the grate facing left and right. (See Fig. 6A).

### **Secondary Air Adjustment - Rayburn 212SFW Only**

When converting from solid fuel to wood burning, the secondary air calibration will require changing from a 6 aeration hole plate to a 8 hole plate, (See Fig. 6B). This is done by simply unscrewing the chrome caps and removing two screws.

## USE OF THE HOTPLATE

**WARNING:** HOT SURFACES, use the tool supplied to operate this appliance. It is recommended to use the heatproof glove supplied when raising the dome lids to use the hotplate. Replacement gloves can be obtained from the AGA Shop

The best results can only be obtained by using machined base utensils. The hottest part of the hotplate is immediately above the fire, the other end being for simmering.

The circular plug in the hotplate (near the flue chamber end) is for flue cleaning and must not be removed for cooking.

**NOTE:** TO OBTAIN HOTPLATE PERFORMANCE FOR FAST BOILING OR HOTPLATE COOKING, FUEL THE FIREBOX APERTURE TO A HORIZONTAL LEVEL .

**WARNING:** THE COOKER TOP PLATE SURFACE AROUND THE HOTPLATE WILL BECOME HOT UNDER USE AND CARE MUST BE OBSERVED. PLEASE REFER TO THE INSTALLATION INSTRUCTIONS REGARDING MINIMUM CLEARANCES TO COMBUSTIBLE SURFACES AND MATERIALS.

## MAIN OVEN

**WARNING: DO NOT EXCEED OVEN TEMPERATURE OF 250°C. THIS MAY CAUSE DAMAGE TO THE APPLIANCE.**

The thermodial is an indication of the oven temperature but should not be relied upon as an accurate measurement of temperature. Use an oven thermometer to calibrate the thermodial.

The correct adjustment of the spinwheel and flue chamber damper to obtain the oven temperature required varies with the chimney draught and can be found only by experiment. The following is a suggested method only, and may need modification to suit local conditions.

Suppose an oven temperature for roasting is desired and that the cooker is idling. Thoroughly de-ash the fire as described in the respective paragraph, and re-fuel.

Set the flue chamber damper to **No.3** setting, and open the spinwheel as described under 'Control Setting'.

As soon as the fire has become red all through, close the flue chamber damper. Do not allow the fire to become white hot.

The temperature of the oven should now rise steadily. When it reaches a point about 30°C (50°F) below that required, close the spinwheel to approximately one turn open. Thereafter control the temperature of the oven by adjusting the spinwheel.

The main oven may take 2 hours to come to temperature. To maintain control for cooking purposes top-up the firebox with 1-2 kgs of fuel and lightly de-ash. Maintain the firebox about 1/3 - 1/2 full but this will be best observed through experience.

**NOTE: THE APPLIANCE SHOULD PROVE SUCCESSFUL IN ALMOST ALL CASES, BUT IF CLOSING THE FLUE CHAMBER DAMPER CAUSES THE FIRE TO SMOKE, IT SHOULD BE OPENED GRADUALLY UNTIL THE SMOKING STOPS.**

To reduce top heat in the oven, place the solid plain shelf on the top or second pair of oven runners. The oven may be cleaned with a stiff wire brush, when it is very hot.

Setting	Oven Temperature
HOT	220°C < (400°F<)
MODERATE	160-220°C (320°F-400°F)
SLOW	<160°C (<320°F)

Check with pointer reading on oven door thermodial.

**NOTE:** DUE TO VARYING SITE CONDITIONS NON-BOILER MODELS MAY RUN AT HIGHER TEMPERATURES THAN QUOTED ABOVE.

## WARMING OVEN

The oven is primarily intended for heating plates and keeping food warm. As a guide it is around 1/3-1/2 of the temperature of the main oven.

**NOTE:** THE DOORS SHOULD NOT BE SLAMMED SHUT OR THIS WILL WEAR AWAY THE METAL RETAINING CATCHES

## FLUEWAY CLEANING

When burning coke, anthracite and other smokeless fuels, the appliance flueway should be cleaned on a regular four weekly basis.

When burning bituminous coal or wood, cleaning should be done at weekly intervals.

Failure to ensure clean flueways, flue pipe and bends may lead to emission of dangerous gases and an inferior performance from your appliance.

Allow the fire to burn out. Open the flue chamber damper to its maximum and remove the flue chamber door.

Brush the soot or fly ash from the flue pipe allowing it to fall onto the top of the oven.

Remove the hotplate plug and rake the deposits forward, pushing them into the firebox. Figs. 7, 8 & 9.

Replace the flue chamber door and hotplate plug and riddle the bottomgrate for re-lighting.

**NOTE: THE APPLIANCE IS DESIGNED AND INTENDED TO BE UNDER CONTINUOUS FIRING BUT IF IT IS NOT IN USE, ASHPIT AND FLUE CHAMBER DOOR SHOULD BE LEFT OPEN TO ENSURE FREE PASSAGE OF AIR THROUGH THE APPLIANCE AND AVOID CONDENSATION PROBLEMS.**

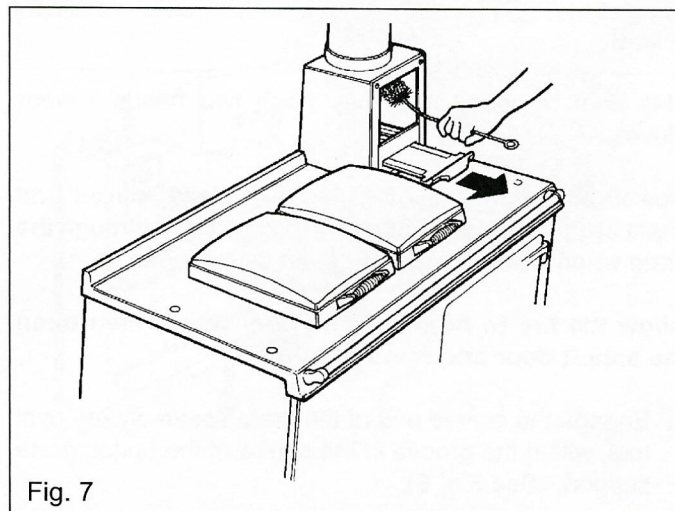


Fig. 7

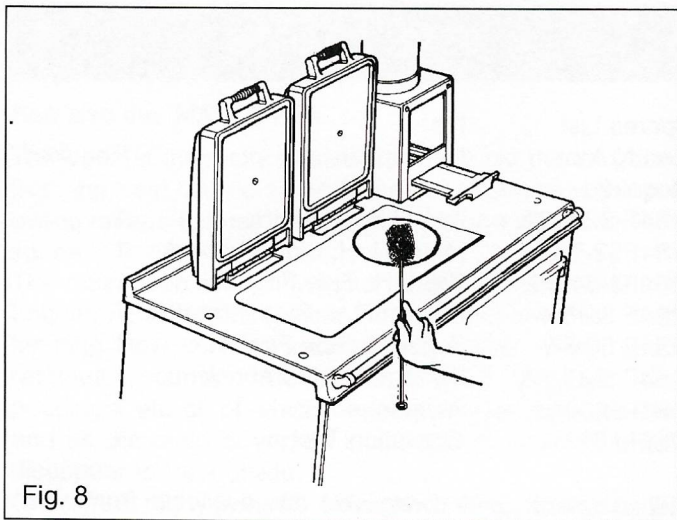


Fig. 8

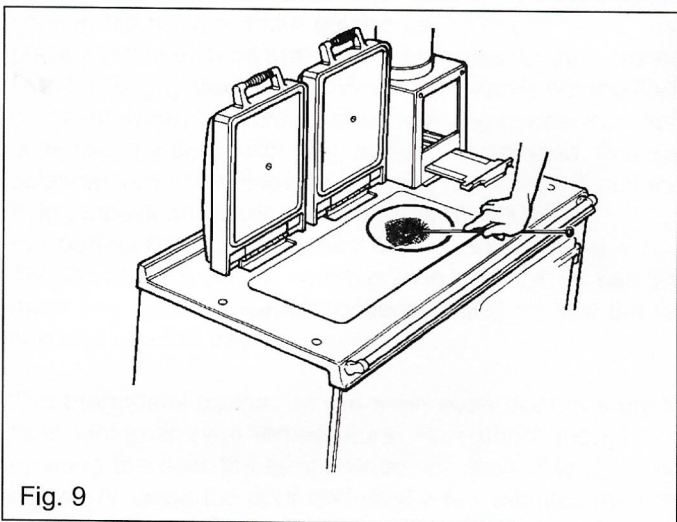


Fig. 9

### Chimney Sweeping

Sweep annually and inspect soot box at 3 monthly intervals and remove any deposits.

**NOTE: SWEEP BRUSHES MUST BE OF THE TYPE WITH WIRE CENTRES AND GUIDE WHEELS.**

## CHIMNEY FIRES

Failing to maintain your cooker properly can lead to a chimney fire. Chimney fires occur when combustible deposits on the inner walls of the chimney ignite. These combustible deposits called 'creosote' are a natural by-product of woodburning. A fire hazard exists if 1/4" of creosote (or more) coats the inner walls of the chimney.

### Prevention

Chimney fires do not occur in clean, intact properly installed chimneys. Have a professional chimney sweep clean and inspect your appliance at least once a year. More frequent cleaning may be required, based on the type of fuel burned, the type of appliance, and the frequency of use. In general, an older appliance or one that is used frequently, will require more than one cleaning per year.

### Detection

The first indication of a chimney fire is usually the noise, a roaring sound that grows louder as the fire's intensity increases. Clouds of black smoke and sparks will be seen exiting the top of the chimney, in severe fires, flames can extend several feet about the chimney.

### Action

In case of a chimney fire follow these steps but **DO NOT** put yourself or others in peril:

1. Call the fire brigade immediately.
2. Get everyone out of the property.
3. Close down the air supply to the appliance i.e. the primary air spinner and the flue damper. Limiting the fire's air supply will reduce its intensity. If there is a damper in the chimney connector, plug or close the opening.
4. If a fire extinguisher is available, open the appliance door just enough to insert the nozzle of a 10 lb dry chemical fire extinguisher rated for Class ABC fires. Discharge the entire content of the extinguisher into the appliance and shut the door.
5. If possible, wet down the roof and other outside combustibles to prevent fires ignited by shooting sparks and flames.
6. Closely monitor all combustible surfaces near the chimney. During severe chimney fires, these surfaces can become hot enough to ignite

After a chimney fire, have the chimney inspected by a professional chimney sweep or cooker installer.

## CLEANING

### REMEMBER: BE CAREFUL OF THE HOT APPLIANCE.

To keep the vitreous enamelled surfaces bright and clean, wipe over daily with a soapy damp cloth, followed by a clean dry duster. If milk, fruit juice or anything containing acid is spilt on the top plate or down the cooker, be sure to wipe it immediately or the vitreous enamel may be permanently discoloured. Keep a damp cloth handy while cooking, to wipe up spills as they occur, so they do not harden and become more difficult to remove later.

If spills do become baked on a cream cleanser can be used. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.

In the main oven, spills and fat splashes are carbonised at high temperature, occasionally brush off with a stiff brush. The oven door can be removed for cleaning - **do not** immerse in water, and shelves can be soaked and cleaned with a cream cleanser.

Both insulating covers should be raised and allowed to cool before cleaning with a soapy, damp cloth. Use a wire brush to keep the cast iron hotplate clean. General cleaning is best carried out when the Rayburn is cool.

**IMPORTANT NOTE:** AGA recommend Vitreous Enamel Association approved cleaners for cleaning the vitreous enamelled surfaces of this product.

But they are unsuitable for use on: chrome and stainless steel components, including the hand-rails and their brackets.

The insulating covers should be cleaned regularly with a NON-ABRASIVE mild detergent, applied with a soft (coarse free) cloth and lightly polished up afterwards with a soft (coarse free) duster or tissue to bring it back to its original lustre.

## FIREBRICK REPLACEMENT

The firebricks fitted to the Rayburn 212SFW are of first quality manufacture, and providing the cooker has been installed and used correctly will have a reasonable life. They are, however, expendable items and in time will require renewal.

Replacement bricks either in sets or singly can be obtained from your Rayburn distributor. Always quote the manufacturing number.

The manufacturing number, which will be found on a data plaque fixed to the appliance, should be quoted if any questions arise in connection with this Rayburn Cooker.

## HOT WATER SERVICE

### Rayburn 212SFW

The cooker has been designed to provide a satisfactory supply of domestic hot water with a normal day's cooking, providing the cooker is kept alight overnight and the system, complete with lagged cylinder, conforms to the installation instructions.

In some circumstances it may be possible to overheat the appliance and the water inside will boil. This will be evident by the sound of a knocking noise coming from the appliance and pipes around the house. If this occurs close off all air controls and manually start the central heating pump if fitted. Opening the oven doors and hotplate covers will help to release heat from the appliance. Be aware that steam and boiling water will be expended from any open vent from the heating system probably in the roof space at the expansion tank.

In the unlikely event that the appliance is not operating in freezing conditions the water must be drained from the boiler to prevent frost damage.

## SERVICING

Always use a qualified service/heating engineer when servicing or maintenance is required. Use only authorised replacement parts. Do not make unauthorised modifications.

## FUME EMISSION WARNING

Properly installed and operated, this cooker will not emit fumes.

Occasional fumes from de-ashing and re-fuelling may occur but persistent fume emission must not be tolerated. If fume emission does persist, then the following immediate action should be taken:

1. Open doors and windows to ventilate room.
2. Let the fire out or remove lit fuel from cooker.
3. Check for flue or chimney blockage, and clean if required.
4. Do not attempt to re-light the fire until cause of fumes has been identified, and if necessary, seek professional advice.

## SPARE PARTS

Spares List Part Number Required	No Description	Required
RS4F 3-51-2A	L.H. Side Firebrick	1
RS4F52-7A	Middle L.H. Side Firebrick	1
RS4F3-54-8B	Top L.H. Side Firebrick	1
RS4F 3-48-4A	Bottom R.H. Side Firebrick	1
RS4F 50-5A	Top R.H. Side Firebrick	1
RS4F 3-47-3A	Bottom Front Firebrick	1
RS1M 90040	Ashpan	1
RSFM 61	Operating Tool	1

Replacement parts if required are available from your local stockists.

## COOKING HINTS

See also the 'MAIN OVEN'.

The oven is indirectly heated from outside by hot gases from the heat source so no flames or elements within the ovens means full use can be made of the whole cooking space.

The main oven is slightly hotter towards the top than the bottom. At a low idling heat the main oven can be used for long slow cooking such as casseroles, stock, soup, ratatouille, curries, meringues, creme caramels, rice puddings, etc all of which benefit from gentle slow heat and as the oven is vented into the flue, cooking smells disappear to the outside.

One of the many benefits of the cast iron oven is that the floor of the oven is hotter than that of a conventional cooker. No need to bake quiche pastry cases "blind" just place the flan dish on the oven floor for half of the cooking time for "soggy-free" pastry. When the oven is hot the floor of the oven can be used for shallow frying (a cast iron dish is recommended) with the added advantages that fat splashes are carbonised so cleaning is minimised and the frying smells are taken away through the flue.

For perfect baking results turn food during cooking.

The top of a hot oven is where grilling takes place, use the meat tray with a grill rack (optional extra) so that the fat can drip into the tray.

The thermodial gauge, on the main oven door is a guide to the internal oven temperature. Remember though, on opening the door the temperature will appear to drop, do not worry, close the door and after a few minutes the true temperature can be read again.

Heat is not lost as quickly from a cast iron oven as a pressed metal box type so you can peep at the cake to see how it is cooking without it sinking.

As you have probably realised, the meat tray supplied with your Rayburn fits the oven, hanging directly from the runners, so leaving the grid shelves free for other dishes. The oven grid shelves are designed to be non-tilt and should be fitted with the upstand to the top and at the back, so when pulled forward the shelf cannot come right out.

The solid plain shelf, as mentioned before, can be used as a baking sheet or as a heat deflector. If the oven is too hot or food already in the oven is beginning to overbrown slide in the solid plain shelf, above the food. To be effective the shelf should be stored out of the oven, so it is used from cold.

### **DO NOT USE ABRASIVE PADS OR OVEN CLEANERS**

**NOTE: IT IS NOT ADVISABLE TO PUT VERY WET CLOTHES ON THE HANDRAIL, AS THIS MAY CRAZE THE ENAMEL.**

**NOTE: SMOKE/SMELL EMITTED DURING INITIAL USAGE.**

Some parts of the cooker have been coated with a light covering of protective oil. During initial operation of the cooker, this may cause smoke/smell to be emitted and is normal and not a fault with the appliance, it is therefore advisable to open doors and or windows to allow for ventilation. Lift the lids to prevent staining the linings.

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For further advice or information contact your  
local distributor/stockist

With AGA Rangemaster's policy of continuous  
product improvement, the Company reserves the  
right to change specifications and make  
modifications to the appliance described at any  
time.



from The word "from" is followed by the AGA logo, which consists of the letters "AGA" in a white, bold, sans-serif font inside a black, horizontally-oriented oval.

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