

WARNING

This information is a copy of an original archive, therefore Aga cannot be held responsible for its continued accuracy.

Rayburn Royal G33 · G33N · G33L

July 1976

Gas-fired Cooker/Water Heater

Information Sheet

The Rayburn Royal G33 is a cast iron insulated cooker designed for continuous operation. It combines the superior cooking qualities of an indirectly heated oven with the convenience and easy control of gas firing, and incorporates a boiler which can supply domestic hot water and central heating.

FEATURES

- Requires no mains electricity.
- Continuously operating — oven and hotplate easily brought up to temperature when required.
- Twin burners to give economic operation in winter as well as in summer with central heating off.
- Suitable for conventional flues — incorporates down-draught diverter.
- Suitable for use with Natural, Town or L.P. Gases.
- Waist-high unobtrusive controls — manual for cooker, thermostatic for boiler when central heating in use.
- Boiler may be connected to any small bore or micro bore system — pumped or gravity.
- Twin insulating covers.
- Left hand or right hand ovens.

PERFORMANCE

Cooking

Will meet requirements of a family of 6 - 8. 1½ cu. ft. roasting oven, 1 cu. ft. warming oven and hotplate large enough for 5 average sized pans.

Boiler Output

9.7 kW (33,000 Btu/h) suitable to supply 135 l (30 gall) indirect cylinder and up to 17 m² (180 sq. ft.) radiator and unlagged pipe surface (assuming a heat emission factor of 0.5 kW/m² (160 Btu/h/ft²). With one burner only alight, as under summer conditions, boiler output will meet average demands for domestic hot water only.

Input

- | | |
|--|---|
| (1) Cooker Burner only
(summer use) | Variable between
9,000 and
28,500 Btu/h |
| (2) Cooker and Boiler Burners
(using central heating) | Variable between
9,000 and
68,000 Btu/h |

Gas Consumption

- | | |
|-------------------------------|---|
| (1) Cooker Burner only | 3 Therms/day average,
dependent on use. |
| (2) Cooker and Boiler Burners | Dependent upon
system and operating
conditions. |

SPECIFICATION

Boiler

Welded steel, with horizontal cross tubes, completely surrounds combustion chamber. Internal baffle, removable for cleaning.

Roasting Oven

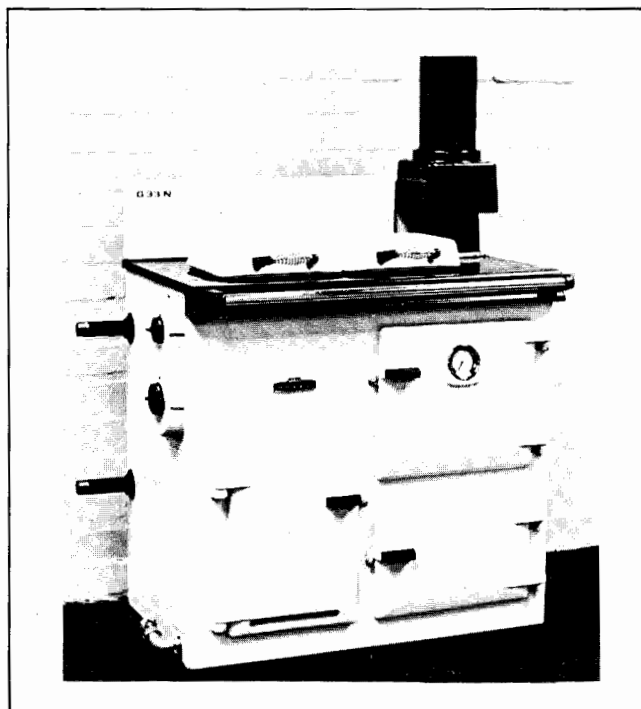
Fine cast iron (14" wide × 12" high × 16½" deep), fitted with one oven shelf, 1 oven grid shelf.

Warming Oven

Sheet steel. Finished heat-resistant aluminium paint. 14" wide × 8" high × 16½" deep.

Burners

Twin 12" Teknigas burners, with appropriate injectors for Town Gas or Natural Gas. Alternative burners supplied where specified for L.P.G.



Each burner fitted with separate pilot, each protected by own Mercury flame failure device.

Gas Controls

Burner pressure controlled by ½" B.S.P. Evered gas governor.

Boiler burner controlled by Teddington ON/OFF thermostat.

Ignition

Manual.

External Finish

Main castings vitreous enamelled, sheet metal end casings etc., stove epoxy resin, in white or cream (hob, downdraught diverter/flue connector in black vitreous enamel).

Accessories

Plate rack.

Plinth to raise height of cooker hob to 35⅝"

Service Connections

Boiler — 2 × 1" B.S.P. (female).

Gas — ½" B.S.P. (female) for Natural Gas.
¾" B.S.P. (female) for Town Gas.

Flue — Downdraught diverter/flue connector accepts 5" dia. pipe for connection to lined flue.

Gas Pressure at Burner (both burners on)

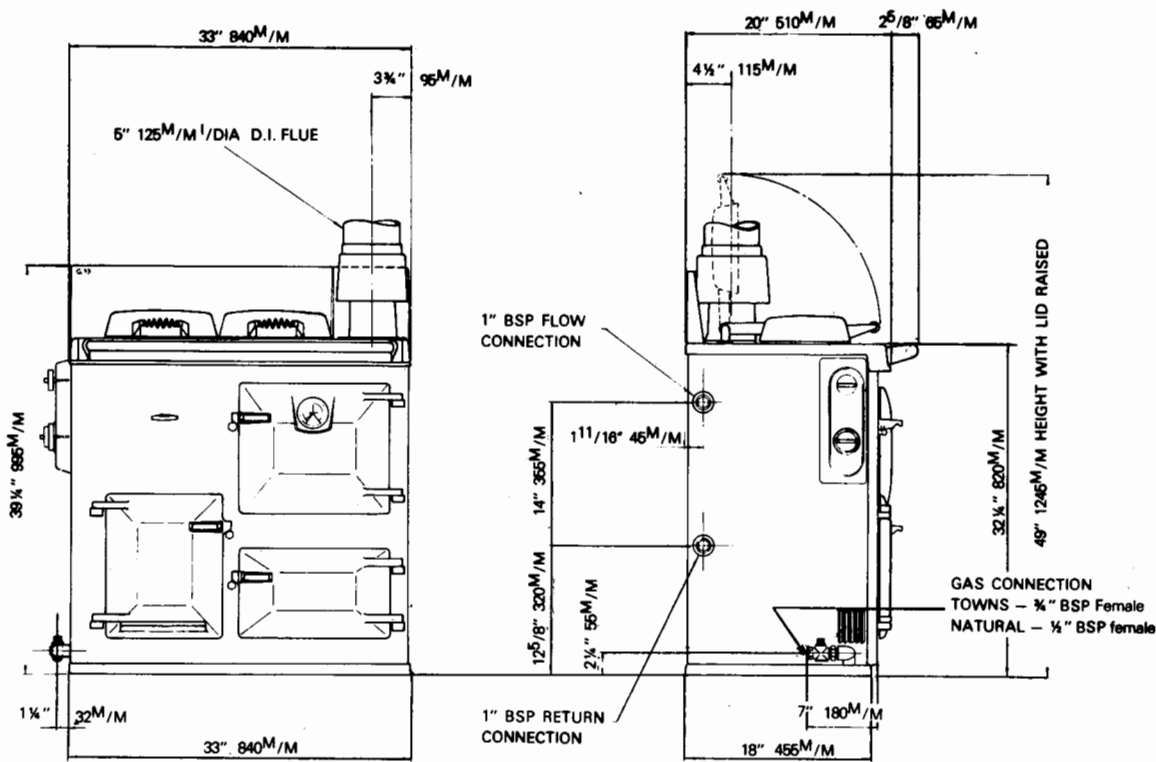
- | | |
|---------------|-----------------------------------|
| Cooker Burner | Natural Gas — 13.75 mbars (5.5"). |
| | Town Gas — G4 3.00 mbars (1.2"). |
| | G5 3.50 mbars (1.4"). |
| Boiler Burner | Natural Gas — 13.50 mbars (5.4"). |
| | Town Gas — G4 4.00 mbars (1.6"). |
| | G5 4.75 mbars (1.9"). |

Ventilation

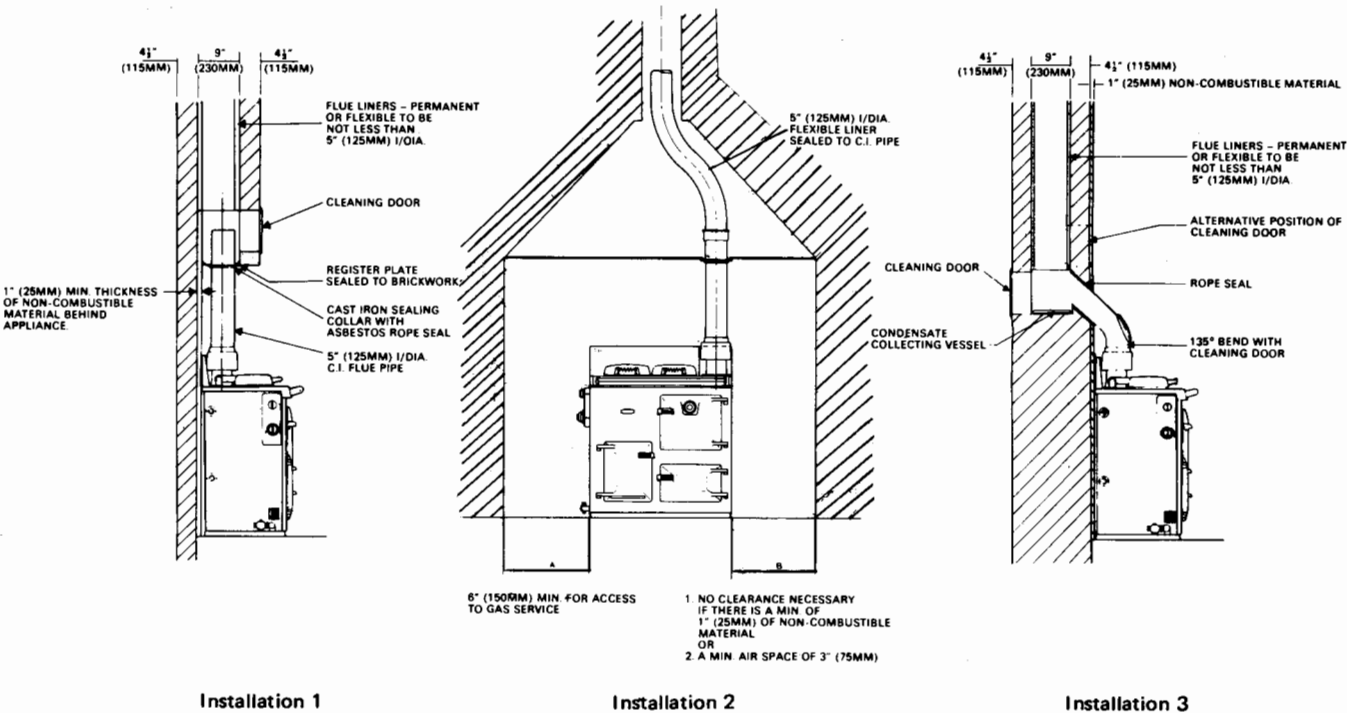
A permanent air vent having a minimum effective area of 9 030 mm² (14.0 in²) must be provided in the outside wall of the room.

Additional free air space must be provided when an extract fan is fitted in the same room as the cooker; the area will depend on the capacity of the fan.

General Dimensions.



Recommended methods of flue connection.



Model	G.C. Number
G33 R.H.	45 327 05
G33 L.H.	45 327 06
G33N R.H.	45 327 07
G33N L.H.	45 327 08

CONFORMS TO B.S. 5258 

PATENT No. 1 374 772

Note: The manufacturers reserve the right to make alterations to design, materials or construction for any manufacturing or other reasons subsequent to publication.

Agahat Appliances

Glynwed Domestic & Heating Appliances Ltd
P.O. Box 30, Ketley, Telford
Salop TF1 1BR
Tel: Telford 3973

London Showrooms:
28 Brook Street, London W1Y 2PD

GLYNWED

Rayburn Royal Gas-Fired Cooker

Model G33N

The Gas Fired Rayburn Cookers, though similar in performance to the popular solid fuel and oil fired Rayburn Cookers, have been redesigned to burn gas – Natural Gas, Town Gas or Propane. They are excellent as cookers, have an efficient boiling plate, provide domestic hot water and will keep the kitchen warm and dry. In addition, the powerful boiler with a separate burner thermostatically controlled, will heat radiators. They must be alight continuously, burning at a low rate overnight or when not required for cooking, and at a higher rate as needed for cooking and heating.

WARNING NOTICE

**THIS APPLIANCE IS FOR USE
ON NATURAL GAS ONLY AND
CANNOT BE USED ON ANY
OTHER GAS.**

Operating Instructions

OVEN BURNER ONLY ALIGHT

To light the oven burner (the burner near the ovens)

Open the door on the boiler side, and lift off the inner door by means of the two projecting tongues. Turn the gas on at tap A (which is outside the cooker at the bottom on the boiler side) and light the pilot burner B with a match or taper. Wait a few minutes, and then turn the burner tap F (the top tap on the boiler side, near the top of the cooker) to HIGH. This tap has a safety lock, and you must push the knob in towards the cooker as you turn it from the OFF position. It can then be turned freely between the HIGH and LOW positions, but you must push the knob in to turn it from LOW to OFF. When the burner is alight, replace the inner door and close the outer door.

To extinguish the cooker burner

Turn OFF the burner tap F and the tap A.

Note. If the burner is to be re-lit in a day or two, only turn the burner tap F OFF: the pilot burner will remain alight and the main burner will light immediately when you turn the burner tap F on again.

To heat the oven and increase the boiling plate temperature

Turn the cooker tap F to HIGH: when the oven is hot enough, turn the tap to a mid setting and adjust as required to maintain the temperature you want. To reduce top heat in the oven, place the plain shelf on the top pair of runners.

The boiling plate

When the oven is in use the boiling plate will be hot enough for normal needs. At other times, turn the oven tap F to a higher setting to increase the temperature of the boiling plate.

Pans and kettles must have flat machined bases. Use a wire brush to keep the boiling plate clean.

Hot Water Service

The supply of hot water is automatic, and is greatest when the burner tap is at HIGH, and is dependent on the use of the cooker. If more hot water is required, set the burner tap overnight to a setting higher than LOW.

When the oven is not required during the day

Turn the burner tap F to a lower setting, which will in most cases give sufficient heat to the boiling plate and hot water. Use the setting that meets your needs.

Overnight

Turn the burner tap F to a low setting. LOW gives the lowest burning rate and will maintain an oven temperature of about 280°F. At a higher setting, the gas consumption will be a little higher, but the oven, boiling plate, and water will all be hotter. Use the setting that meets your needs. Turn the tap F to HIGH in the morning if you wish to boil a kettle of water quickly.

BOTH BURNERS ALIGHT

Oven burner

Use as described previously.

Boiler burner (near the side of the cooker)

The tap that controls the boiler burner is on the side of the cooker, below the oven tap and is of the thermo-static type. The control knob is in two parts. The centre knob has a bar which must be horizontal (gas off) when the boiler burner is not needed, vertical (gas on) when the boiler burner is alight. Do not turn it to a mid position. The outer ring Q adjusts the thermostat and may be turned to any position from LOW (about 130°F) to HIGH (about 180°F) to suit your needs.

To light the boiler burner:

1. Open the outer door and lift off the inner door by means of the two projecting tongues. Check that the bar of the centre knob of the boiler burner tap K is horizontal.
2. Turn the boiler burner pilot tap L with a screwdriver until the screwdriver slot is in line with the pipe: light the pilot M with a taper.
3. Push in towards the cooker and turn the boiler burner centre knob K until the bar is vertical. Turn the outer ring Q to HIGH. The intermittent pilot N will light immediately, and in a little while, the boiler burner will light.
4. Replace the inner door and close the outer door.
5. Turn the outer ring Q of the boiler burner tap to the position you desire – the higher the number, the hotter the water. If the heating system is fitted with a pump, switch the pump ON.

Control of the boiler burner is now automatic. When the water is hot enough, the intermittent pilot N and main burner flame will go out; as the water cools, they will re-light.

TO EXTINGUISH THE BOILER BURNER

For short periods

Push and turn the centre knob K of the boiler burner tap until the bar is horizontal. The permanent pilot M will remain alight and the burner will re-light when the centre knob K is turned to vertical. Switch the pump off.

For long periods

Push and turn the centre knob K of the boiler burner tap until the bar is horizontal and turn off the pilot tap L with a screwdriver until the screwdriver slot is across the pipe. Switch the pump off.

Overnight

The burner may be left on or off as you wish.

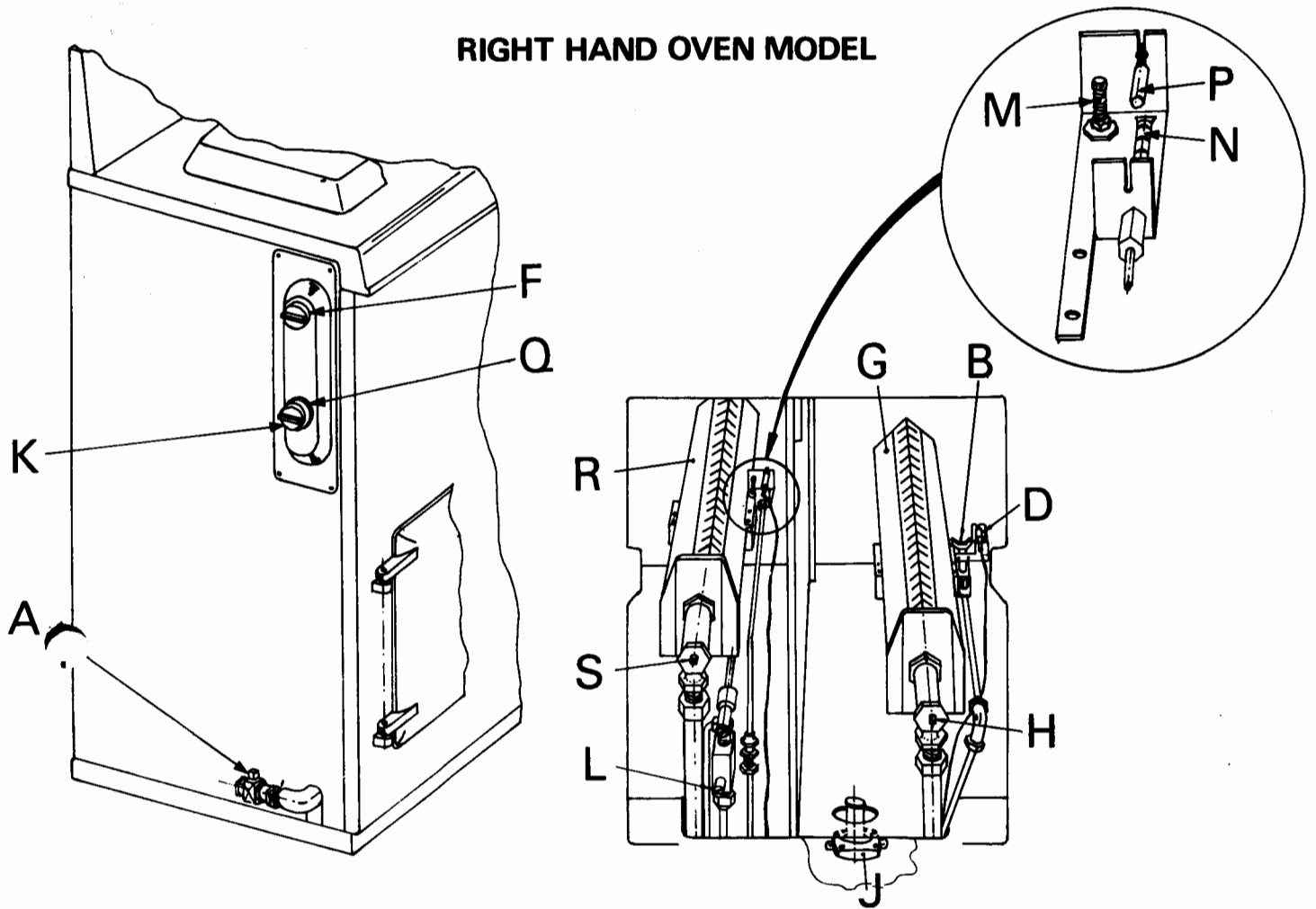
If you wish to keep the radiators warm overnight, turn the outer ring Q of the boiler burner tap to a low setting and leave the heating pump switched on.

If you do not wish to keep the radiators warm overnight, switch the pump off, and leave the outer ring of the tap at a low setting. If the pump is controlled by a time switch, leave the outer ring of the tap at a higher setting so that the water will heat in morning when the pump starts.

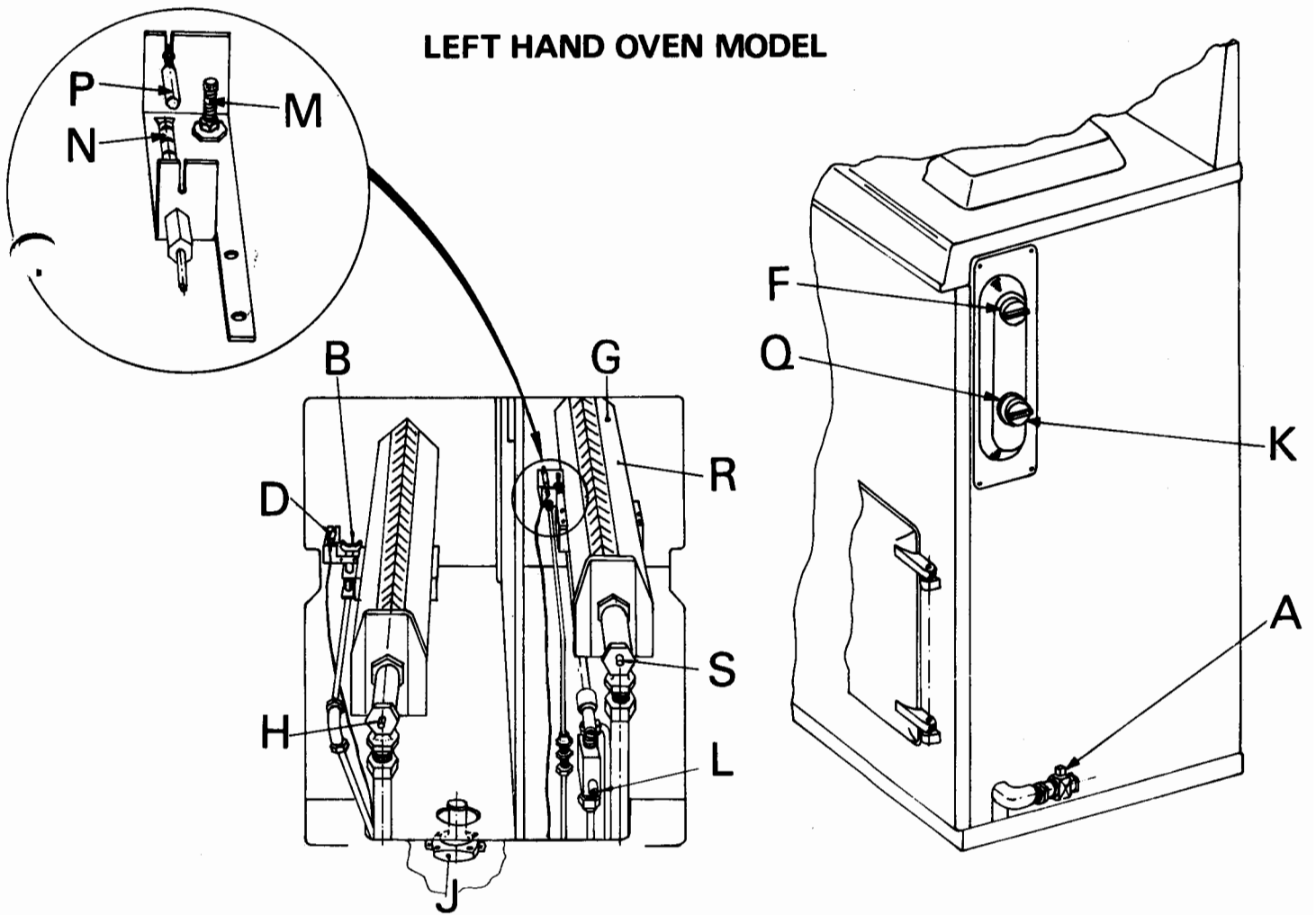
SERVICING

The cooker should be serviced at twelve monthly intervals by a competent service engineer. We recommend a service contract with the local Gas Region or with your installer.

RIGHT HAND OVEN MODEL



LEFT HAND OVEN MODEL



RAYBURN Cooker – OVEN TEMPERATURE CHART

Notes: Apart from "SLOW" Oven temperatures, a reading on the Oven Thermometer within 20° of the figure given in the chart is near enough. The oven has five pairs of runners. The top runner is described as runner 1. The solid shelf can be used as a baking sheet or, by placing it on runner 1, it can be used to reduce the top heat in the oven.

Dish	Oven Temperature °F.	Position in Oven
Baked Custard	300	On grid shelf on runner 4.
Baked Fish	375	On grid shelf on runner 3.
Baked Potatoes	450	Anywhere.
Biscuits	350	On solid shelf anywhere.
Braising	350	On solid shelf on runner 5.
Bread	450	Anywhere.
Cheese Dishes	400	On grid shelf on runner 3.
Choux Pastry	400	Anywhere.
Flaky Pastry	450	Anywhere.
Fruit Bottling	250	On solid shelf on oven bottom.
Fruit Pies	450	On grid shelf on runner 4. Solid shelf over.
Gingerbread	325	On grid shelf anywhere.
Large Cakes	350	On grid shelf on runner 4.
Milk Puddings	250	On grid shelf on runner 4.
Oven Stewed Fruit	250	Anywhere.
Oven Stews	250	Anywhere.
Plain Fruit Cake	350	On grid shelf on runner 4.
Puff Pastry	450	On grid shelf on runner 2. Turn when risen.
Rich Fruit Cake	325	On solid shelf on runner 4. Paper Covering.
Roast Meat	450	On oven bottom.
Roast Potatoes	450	Anywhere.
Scones	450	On solid shelf on runner 3. Turn when risen.
Short Pastry	400	On solid shelf on runner 3. Turn when risen.
Slow Roasting	350	Anywhere.
Small Cakes	400	On grid shelf on runner 3. Turn when risen.
Soup or Stock	250	Anywhere.
Sponges	400	On grid shelf on runner 5.
Tartlets	400	On grid shelf on runner 3. Turn when risen.
Victoria Sandwich	400	On grid shelf on runner 5.
Yeast Rolls	425	On grid shelf on runner 2. Finish on oven bottom.



Agaheat Appliances

GLYNWED

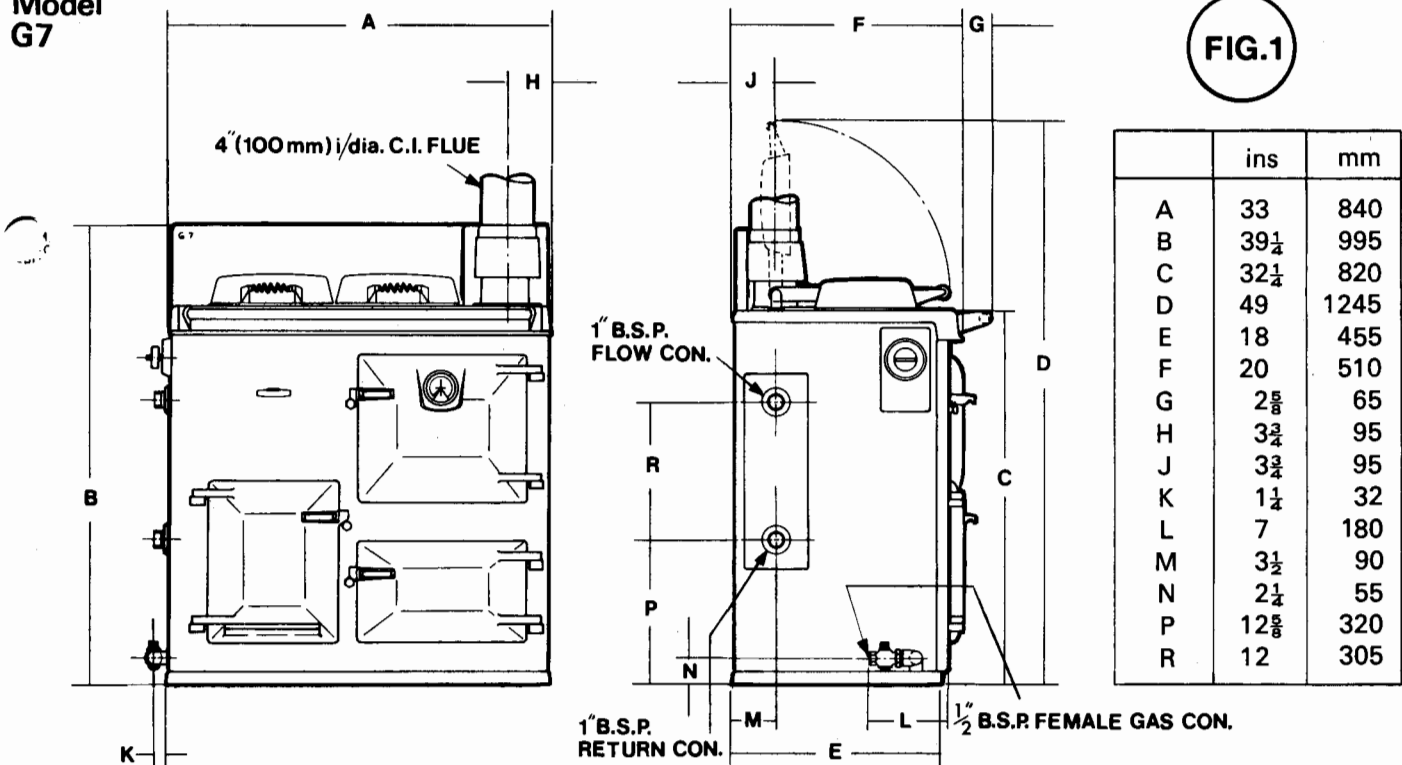
Glynwed Domestic & Heating Appliances Limited
Aga Works, P.O. Box 30, Ketley, Telford, Salop TF1 1BR
Telephone: Telford 51177 (STD 0952)

Rayburn Royal Gas Fired Cookers

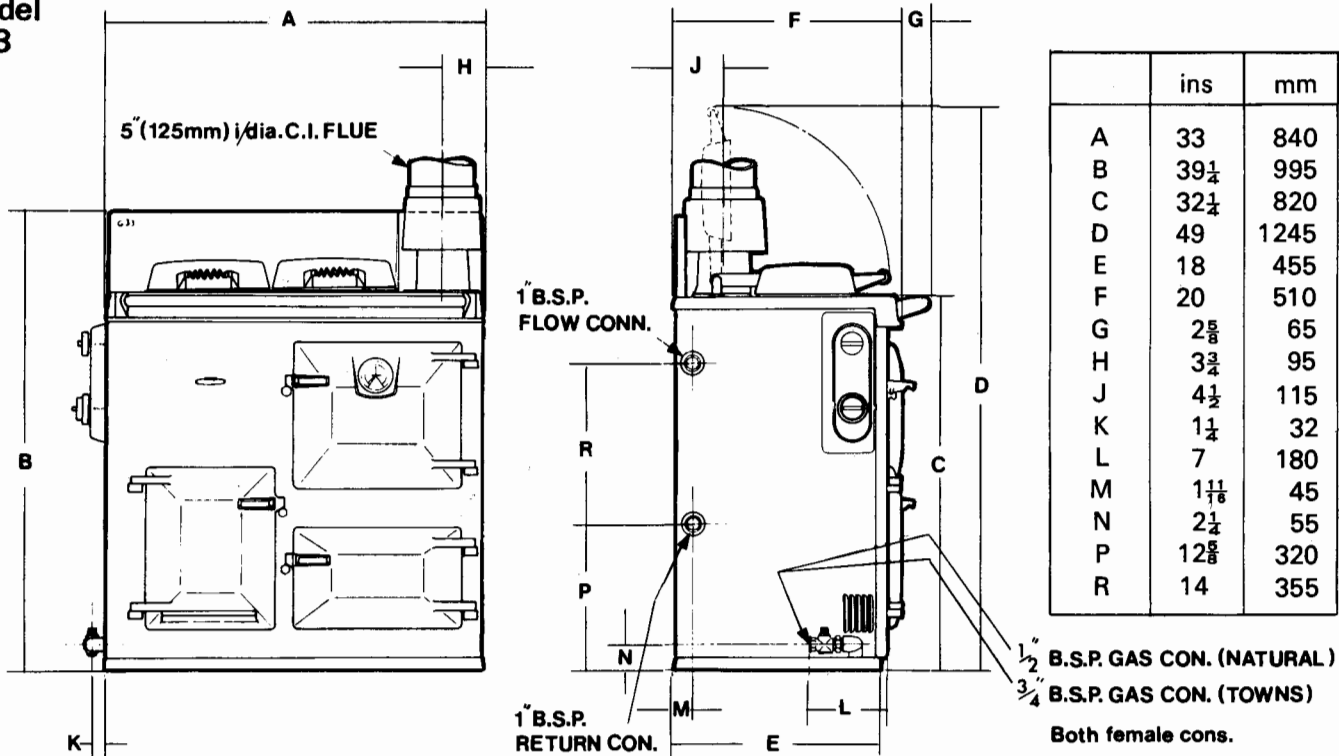
Models: G7, G7N, G33 & G33N (Natural or Town Gas)

Installation Instructions

Model
G7



Model
33



GENERAL

Available with oven on right hand or left hand.

Model	G.C. Number
G7 RH	45 327 01
G7 LH	45 327 02
G7N RH	45 327 03
G7N LH	45 327 04
Duty	Cooking and Domestic Hot Water
Heat Input	8.3 kW (30.06 MJ/h) (28,500 Btu/h)
Water heating output	2.6 kW (9,000 Btu/h)
Gas Connection	$\frac{1}{2}$ " BSP
Water connections	2 x $\frac{1}{2}$ " BSP
Flue outlet dia.	100 mm (4")
Gas pressure at burner test nipple	NG 15.0 mbar (6") TG 3.7 mbar (1.5")

Model	G.C. Number
G33 RH	45 327 05
G33 LH	45 327 06
G33N RH	45 327 07
G33N LH	45 327 08
Duty	Cooking, Domestic Hot water and Central Heating
Heat Input	19.2 kW (71.74 MJ/h) (68,000 Btu/h)
Water heating output	9.7 kW (33,000 Btu/h)
Gas Connection	$\frac{1}{2}$ " BSP NG, $\frac{3}{4}$ " BSP TG
Water connections	2 x $\frac{1}{2}$ " BSP
Flue outlet dia.	125 mm (5")
Gas pressure at boiler burner test nipple (both burners on).	NG 15.9 mbar (6.4") G33N NG 13.5 mbar (5.4") G33 TG 4.0 mbar (1.6") G33

The G7 and G33 boilers should only be connected to a cistern water supply with a maximum head up to but not exceeding 60 feet and have an open vent in the system.

LOW 0.7" 7000 Btu

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 LCC, the Scottish Building Regulations, the Model Byelaws in Northern Ireland, Local Authorities, Local Gas Region and in accordance with the Codes of Practice CP332, Part 2 and CP 3006, Part 1.

HEARTH

The appliance must be installed on a solid level floor or base of incombustible material.

CHIMNEY

The flue pipe must be of the specified size and fitted into the cast iron socket outlet of the integral draught diverter/flue connector. Vitreous enamelled cast iron or steel or vinyl treated asbestos, should form the initial connection to brick flues lined with stainless steel flexible liners. British Standard Codes of Practice CP 337 deal fully with the subject of satisfactory flueing of gas appliances and the recommendations are to be followed.

1. The flue should be constructed of vinyl coated asbestos pipe, glazed earthenware pipe or brick lined with an asbestos cement or stainless steel flexible liner.
2. If existing suitable brick chimney is used, it should be well swept before making connections and always be lined in the case of a G33.
3. Flue Outlet to be fitted with a B.S.I. Approved Terminal.

4. The flue should be adequate in cross section and its route to the terminal as direct as possible. Resistance in the form of change of direction should be kept to a minimum. Right angle and horizontal runs should be avoided.

5. The initial length of the flue pipe from the appliance should be verticle and as high as possible within the room in which the appliance is fitted.

6. The terminal preferably should be located at/or above the ridge level of a pitched roof or 2 feet above the parapet on any adjacent structure of a flat roof. Alternatively, 2 feet above intersection of the flue with a pitched roof. All wall terminations are unacceptable.

7. The local Gas Region should be asked to advise where any doubt arises as to the suitability of a flue.

Flues consisting entirely of cast iron are not recommended but some forms of factory insulated metal chimneys and twin wall asbestos chimneys are satisfactory. Test for satisfactory operation of flue.

VENTILATION

A permanent air vent opening must be provided in an outside wall of the room in which the cooker is fixed. The minimum effective area of the opening should be:—

Model G7 & G7N 3,870 mm² (6.0 in²)

Model G33 & G33N 9,030 mm² (14.0 in²)

Additional air vent area may be necessary when an extractor fan is fitted in the same room as the cooker; the area will depend on the capacity of the fan.

HOT WATER SYSTEM

The cylinder should preferably be of 135 litres capacity (30 gall), be fixed vertically and insulated. It should be as near to the cooker as possible and pipes longer than 5 m (15 feet) should be insulated. The draw off pipe to the taps must be a 'dead-leg' connection from the expansion pipe and together with the cylinder flow and return pipes should not be longer than the maximum laid down in local water by-laws.

Model G7/G7N – Providing Cooking and Domestic Hot Water only

The boiler in the cooker is cast iron which is suitable for use with hard or soft water if the cylinder is of the indirect type. It is suitable in a direct system in some hard water areas and can be supplied vitreous enamelled internally for soft water areas.

Model G33/G33N – Providing Cooking, Domestic Hot Water and Central Heating

The cylinder *must* be of the indirect type. The heat output from the boiler with the oven burner only alight is sufficient to provide a normal supply of water for domestic use. With both burners alight the heat output from the boiler is 9.7 kW (33,000 Btu/h) under normal conditions of use, sufficient to heat a 135 litre (30 gallon) cylinder and 17 m² (180f²) of radiator surface and pipes. Connection to a cylinder is necessary as heat is given to the boiler during summer use, the amount depending on oven usage. The boiler burner is thermostatically controlled. The recommended heating surface areas are based on an average emission of 0.5 kW/m² (160 Btu/f²/h).

The flow pipe from the boiler of the cooker should have connections to the cylinder and to the heating flow, and be vented. The heating return should be connected to the return from the cylinder with an injector tee, (such as the Velotee made by The Mint, (Birmingham) Ltd.) and the outlet of the tee connected to the boiler return. A drain tap should be fitted to the lowest part of the system.

INSTALLATION – (See Fig. 1 for general dimensions)

The cooker is delivered assembled with the exception of the following items which are separately packed.

1. Splash back.
2. Flue Outlet Assembly.

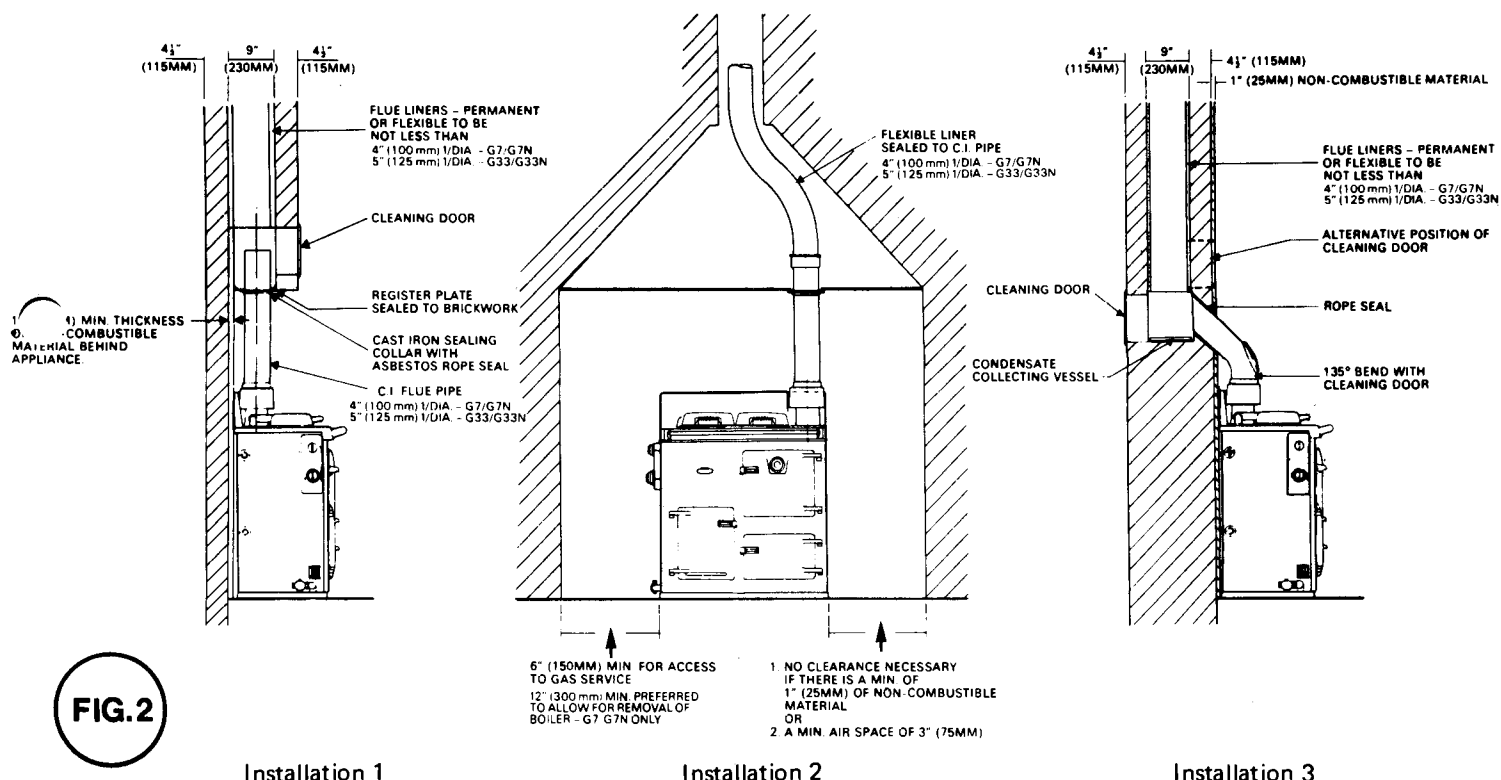
First check that the hearth is level and that the chimney is clean and free from obstructions. Fix the splash back and lower part of the flue assembly to the top of the cooker and place the cooker in position.

On models G7 and G7N – ensure the face of the boiler has been sealed to the combustion chamber with fire cement.

Connect the cylinder (and heating installation with the G33) to the boiler with a drain cock at the lowest point in the system. Fill with water and test for water-tightness, flush the system, once cold, once hot.

Place the flue socket on the flue outlet and connect the flue assembly to the chimney sealing all joints (see fig. 2).

Extend the main gas supply to the bottom side of the appliance and make the final connections to the union service tap at the appliance inlet.



METHOD OF CONTROL – G7/G7N / (see Fig. 3)

When the appliance tap A is open, gas passes to the permanent pilot B – this must be lit when tap A is open. This pilot light heats probe D which actuates the flame failure device and allows gas to pass through the oven burner tap F to the burner G. The burner tap F gives manual control of the gas rate and is of the safety type – the knob must be pushed in as it is turned from OFF to LOW, or from LOW to OFF.

COMMISSIONING PROCEDURE

1. Check that the water system is full. Remove outer and inner doors of combustion chamber.
2. With burner tap F turned to OFF position and appliance tap A closed, turn gas on at meter, disconnect union on appliance tap A, and open tap. Purge gas supply of air by closing the tap when gas reaches the tap. Check all joints between meter and tap A with soap solution.
3. Connect pressure gauge to test nipple H.
4. Turn on tap A, allow time for gas to reach pilot and light pilot B with a match or taper. Inspect pilot flame – it should envelop probe D of the flame failure system heating it until it glows a dull red.
5. Push in and turn knob of burner tap F to HIGH. Check that main burner lights smoothly from pilot light.

6. When the burner has been alight for at least ten minutes, check the gas pressure at the burner and adjust the governor J if necessary to give the pressure shown on the data plate (on the inside face of the outer burner door).
7. Check gas input to the appliance on the meter after one hour, (make sure no other appliances are using gas) and check that gas pressure at the burner is not affected when other appliances are being used.
8. Turn the cooker burner tap F progressively from HIGH to LOW and back to HIGH, observing that the burner flame changes as the knob is turned, that the burner remains alight, and that the pilot flame is stable and constant.
9. Turn the burner tap F to OFF and ON a few times and observe that the burner flame goes out and relights immediately, with no effect on the pilot flame.
10. Turn the appliance tap A off: wait for 5 minutes and turn it on. Do not light the pilot. Check that there is no gas at the burner when the burner tap F is at High. Leave tap F at high, turn on tap A and then light the pilot, the oven burner should light when the probe D is hot.
11. Turn taps A and F to the off positions. Disconnect the pressure gauge from test nipple H and replace the plug, replace the inner and outer doors of the combustion chamber.

METHOD OF CONTROL - G33/G33N (see Fig. 3 & 4)

The two burners are independent of each other; the oven burner control is as described previously for Model G.7.

The boiler burner has a permanent pilot M, controlled by a tap L. When the boiler control tap K is open, gas passes through a weep line to an intermittent pilot N, which is lit by pilot M. Pilot N heats probe P of the flame failure device which, when hot, actuates the flame failure device and allows gas to pass direct to the boiler burner R.

Control Knob Q is of the thermostatic type, controlling water temperature. When the water is heated to the temperature set by the Knob Q, the intermittent pilot N will go out causing the flame failure device to close and shut off burner R. When the water temperature drops, or further heat is required, gas passes to the intermittent pilot N which is relit by permanent pilot 'M' and the cycle continues. The knob of tap K must be pushed in as it is turned from OFF to ON or from ON to OFF.

1. Check that the boiler burner control knob K is OFF and the boiler burner pilot tap L is closed (screw-driver slot at right angle to pipe).
2. Test the cooker burner and controls as described for model G7 but do not adjust gas pressure.
3. Connect pressure gauge to boiler test nipple S.

4. With the oven burner G alight open the tap of the boiler burner pilot L and light the permanent pilot M with a match or taper, adjust pilot flame to $\frac{1}{2}$ " length. Check that neither the intermittent pilot N nor the boiler burner lights.

5. Set thermostat knob Q to a high number, push in and turn knob K. The intermittent pilot N should light immediately; the burner R will light when the probe P of the flame failure system is hot.

6. Check the gas pressure at gas nipple S and adjust as necessary to give the pressure shown on the data plate (on the inside face of the outer burner door).

7. Turn the oven burner tap F ON and OFF and check that it lights satisfactorily and remains alight at all settings from HIGH to LOW.

8. Check the gas input with both taps at HIGH after one hour.

9. Allow the water in the boiler to heat and check the operation of the thermostatic control.

10. Turn taps F and K off, close tap L on the boiler burner pilot and the appliance tap A. Disconnect the pressure gauge from test nipple S and replace the screw plug. Replace the inner and outer doors of the combustion chamber.

MODEL G7/G7N (R.H.OVEN ILLUSTRATED)

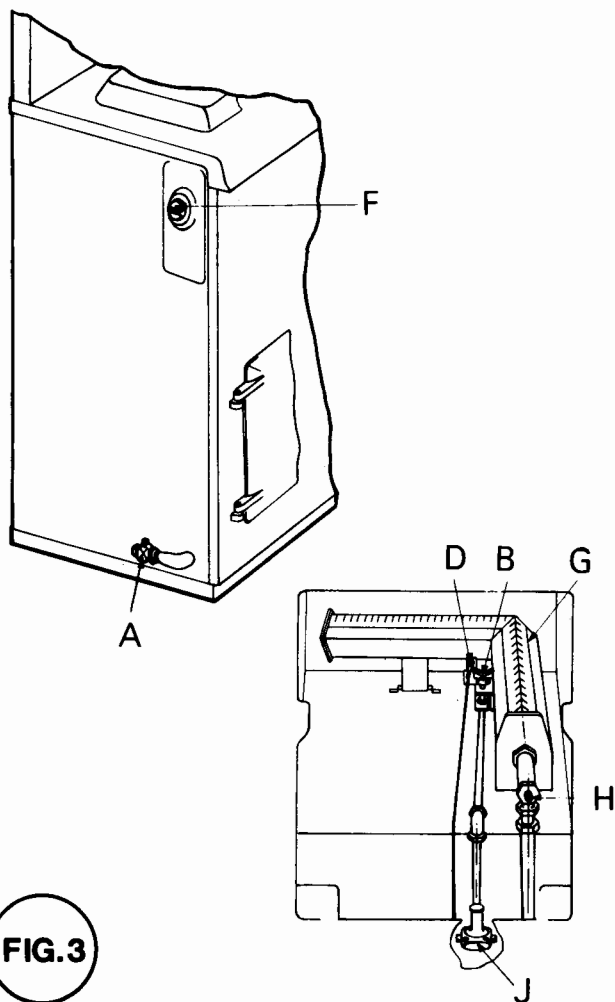


FIG.3

MODEL G33/G33N (R.H.OVEN ILLUSTRATED)

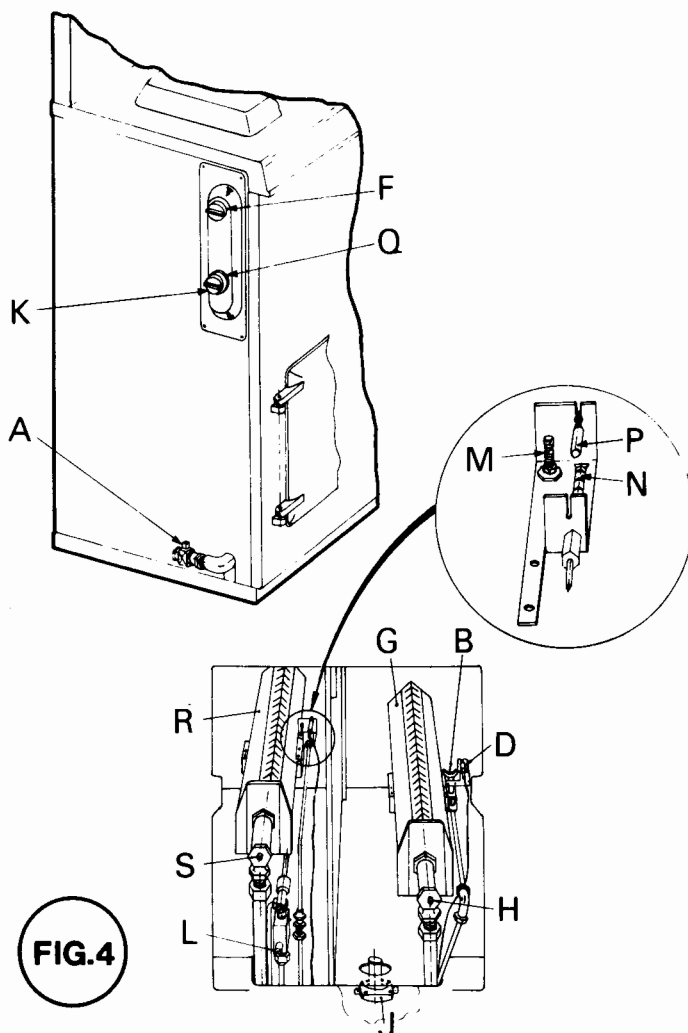


FIG.4

Rayburn Royal G33/G33N GAS FIRED COOKER

MAINTENANCE and SERVICING INSTRUCTIONS

It is important that maintenance be carried out once per annum either by a competent maintenance engineer/installer or by a contract with the Local Gas Region.

CLEANING OF FLUEWAYS AND BURNER MAINTENANCE

With normal use, an annual boiler/cooker flueway clean and burner maintenance should be carried out immediately after the end of a heating season.

An additional flueway clean midway through the heating season may be necessary in some cases.

Both control knobs should be turned off by the householder the night before servicing is due so that the cooker will have cooled down the following morning. Before commencing service, isolate the gas supply by turning off the service tap on the side of the appliance, lift out the hotplate, remove the two horizontal boiler sealing plates located on exposed boiler top (plates are marked for correct replacement). Unscrew two securing bolts along top edge of divider plate, from the inside of the burner chamber. Tilt the top of the plate to one side, lift at front and draw forward to remove.

TO REMOVE BURNERS

Boiler burner

1. Disconnect main burner inlet union connection and the intermittent and permanent pilot union connections at front of burner chamber.
2. Lift up front of burner and draw forward carefully to disengage support foot from baseplate location. Withdraw the burner further until flame failure device probe is accessible.
3. Carefully prise open keyhole slot at rear end of bracket, disengage probe and remove burner.

Cooker Burner

4. Disconnect main burner inlet union connection and the pilot connection at front of burner chamber.
5. Lift up front of burner and draw forward carefully to disengage support foot from baseplate location. Withdraw the burner further until flame failure device probe is accessible.
6. Carefully prise open keyhole slot at rear end of bracket, disengage probe and remove burner.
7. Gently brush away any deposit on both burners and examine gas ports, remove any lint or fluff from injectors and venturi entrances, check pilot burner assembly for damage, and probe bracket for correct alignment.
8. Place layer of paper on combustion chamber baseplate and thoroughly brush boiler and cooker flueways in an upward and downward direction. (See diagram 1). Remove paper layer with fallen deposit.
9. Check that boiler outlet duct and oven top are free of deposit, brush in between ribs on hotplate underside and brush boiler sealing plates.
10. Replace both burners ensuring that support feet re-engage in baseplate locations.
11. Carefully insert flame failure probes in location brackets, ensuring positive positioning by gently crimping end tags of keyhole slots. Refit burner chamber divider plate.
12. Correctly position sealing plates on boiler top and replace hotplate making sure that the underside ribs lie over the combustion chamber.
13. Turn on service cock at side of appliance, light burner pilots as per instructions on inside face of outer burner door, turn on control knobs and check that both burners light satisfactorily.
14. Check re-made union joints for soundness with soap solution and inspect burners for correct flame pattern.

MAINTENANCE OF COOKER AND BOILER GAS CONTROLS

Remove both control knobs and unfasten cover panel on side of appliance.

COOKER CONTROL TAP

Re-greasing of Tap Plug

1. Hold spindle cover plate to tap body with finger pressure and unscrew two retaining screws. The cover plate assembly is spring loaded inside and should be carefully removed from tap body.
2. Withdraw tap plug from housing and lightly smear on plug face an approved grease sealant taking care not to block gasway.
3. Insert tap plug into position so that the gasway hole in plug is in line with the bypass screw housing.
4. Locate large spindle 'dog' between the close positioned tabs on cover plate and offer assembly to tap housing taking care that the spring is in position and the large spindle dog is inserted into tap plug end slot. Hold the assembly firmly in this location and turn cover plate together with plug spindle until holes line up with body and secure with screws: See diagram 2.
5. Check for correct assembly by turning operating spindle.

BOILER THERMOSTAT CONTROL

Re-greasing of Thermostat Gas Cock

1. Hold spindle cover to thermostat body with finger pressure and unscrew two retaining pozi-drive screws. The spindle cover assembly is spring loaded inside and should be carefully removed from thermostat body.
2. Remove spring and withdraw tap plug from housing and lightly smear on plug face an approved grease sealant taking care not to block gasways. The cock bore should be cleaned but not greased.
3. Insert tap plug so that the slotted end is in line with the gas inlet port (vertical position) and the milled gasway on plug is on L.H. side (viewing from front of thermostat).
4. Fit spring on neck of slotted plug; locate spindle in in cover so that spindle tabs prevent spindle rotating and offer assembly to body ensuring that spindle projection engages in plug slot. Line cover plate up with holes on body and secure with screws.
5. Check for correct assembly by turning operating spindle.

Cleaning Thermostat Valve

1. Remove both control knobs and unfasten cover panel on side of appliance. Break union connection to both controls and detach complete bracket assembly from boiler body via two fixing screws.
2. Disconnect boiler thermostat from support bracket and remove rear outlet elbow.
3. Unscrew 6 B.A. Pozi-drive cover screw and lift off top cover.
4. Turn thermostat outer ring to its minimum position. Slacken and remove 2 - $\frac{3}{8}$ " whit x 2" long retaining screws and separate valve housing from inlet adaptor.
5. Unscrew 2 - 4 B.A. x $\frac{3}{8}$ " long Pozi-drive screws and lift off frame assembly, taking care not to loose pushrod.
6. Check that the rubber seal ring is not misplaced and if damaged, renewed. Clean the valve and valve seating, and re-assemble the thermostat in the reverse order.

N.B.

Before securing thermostat assembly to incoming

adaptor on assembly underside, clean respective jointing faces and thinly coat joint face with PLASTICOL. The whole of this work should only be undertaken by an experienced operator. If this is not possible, remove the complete thermostat and return to works for examination.

REPLACEMENT OF COMPONENTS

Remove both burners as previously instructed together with divider plate. Lift out combustion chamber base-plate exposing the controls and associated pipework.

FLAME FAILURE (DEVICES)

1. Disconnect inlet and outlet union connections of faulty flame failure device.
2. Note position of capillary tube and then remove flame failure device.
3. Transfer inlet and outlet connections to replacement valve using suitable jointing compound sparingly.
4. Refit the new flame failure device, positioning the capillary tube as previously noted.

EMERGENCY USE ONLY

In the event of a fault occurring where there is a possibility of the central heating system boiling, the gas supply to the boiler burner may be isolated by turning off the gas tap fitted to the inlet side of the boiler flame failure device. Remember to turn on the gas tap when the fault has been rectified.

PILOT FILTER

1. Disconnect pilot supplies from tee-piece on outlet of pilot filter.
2. Remove tee-piece/pilot filter assembly from governor.
3. Fit new filter and re-assemble in reverse order.

GOVERNOR DIAPHRAGM

1. Unscrew four screws securing governor top to

body and lift off top together with spring.

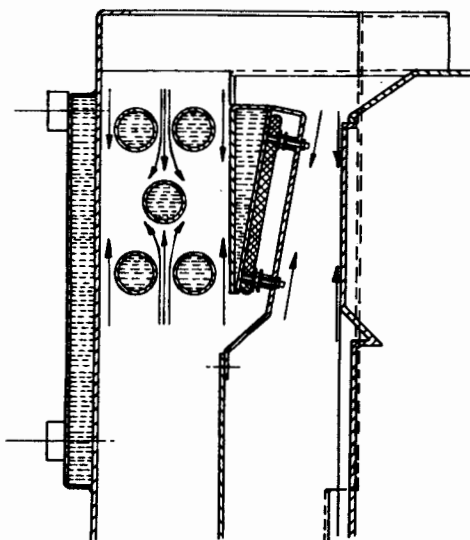
2. Remove diaphragm complete with valve bob and seat.
3. Transfer valve bob and seat to new diaphragm and re-assemble in reverse order.

IMPORTANT To check for GAS SOUNDNESS the following test should be made.

1. Connect both gas burners in position *without* the combustion base plate in position.
2. Apply soap solution to all re-made joints and turn on service cock at side of appliance. Light both pilots and turn on control knobs separately to light main burners.
3. Observe soaped joints for any indication of leakage and when satisfied of gas soundness, isolate gas supply from cooker.
4. Remove both burners from appliance, replace combustion chamber base, and re-connect both burners as previously described.

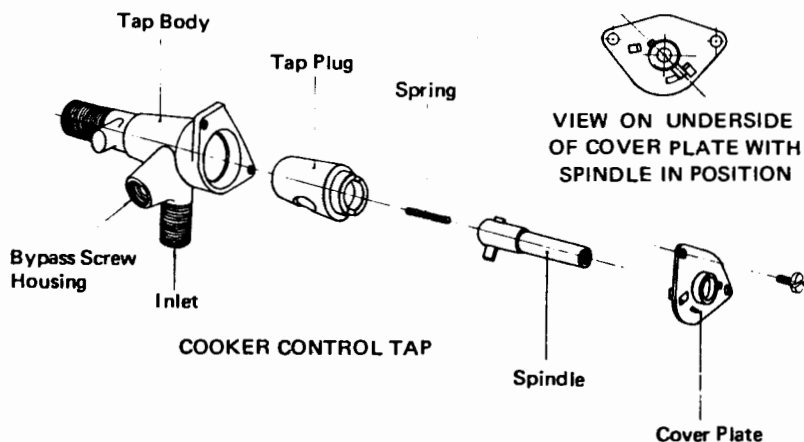
REPLACEMENT OF BOILER THERMOSTAT AND COOKER TAP

1. Remove both control knobs and unfasten cover panel on side of appliance. Break union connections to both controls and detach complete bracket assembly from boiler body via two fixing screws.
2. To remove cooker tap, slacken off locknut on rear of tap and remove elbow. Fit new tap in reverse order.
3. To remove boiler thermostat, disconnect control from support bracket and remove rear outlet elbow. Fit new control in reverse order.
4. Check remade joints for gas soundness using soap solution.
5. Replace assembly and secure to boiler body.
6. Re-fit cover panel and replace control knobs.

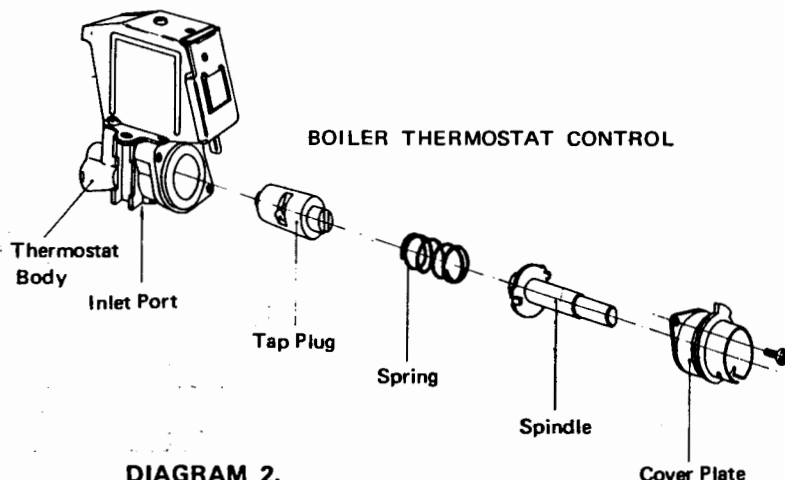


METHOD OF CLEANING FLUEWAYS

DIAGRAM 1.



COOKER CONTROL TAP



BOILER THERMOSTAT CONTROL

DIAGRAM 2.



Glynwed Foundries Limited

Agaheat Appliances Division

Aga Works

Ketley

TELFORD Shropshire TF1 4AD.

Telephone: Wellington 3973

GLYNWED