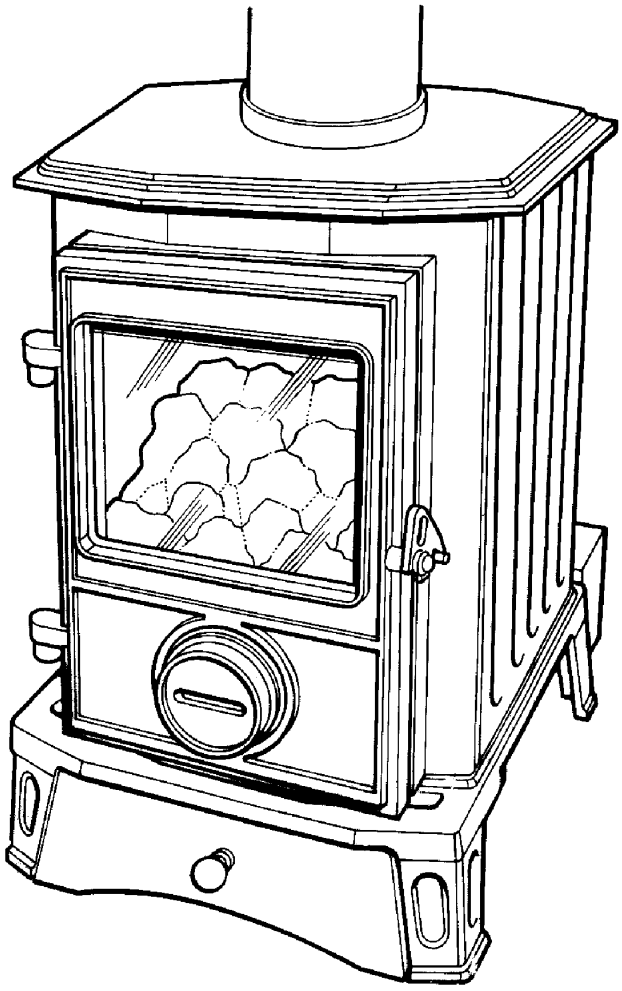
COALBROOKDALE

THE COALBROOKDALE LITTLE WENLOCK OIL STOVE



Owners Manual
comprising of User, Installation and Servicing Instructions

PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLING, SERVICING AND USING THIS APPLIANCE

REMEMBER, when replacing a part on this stove, 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 clearly authorised by AGA-RAYBURN.

04/05 EINS 512220

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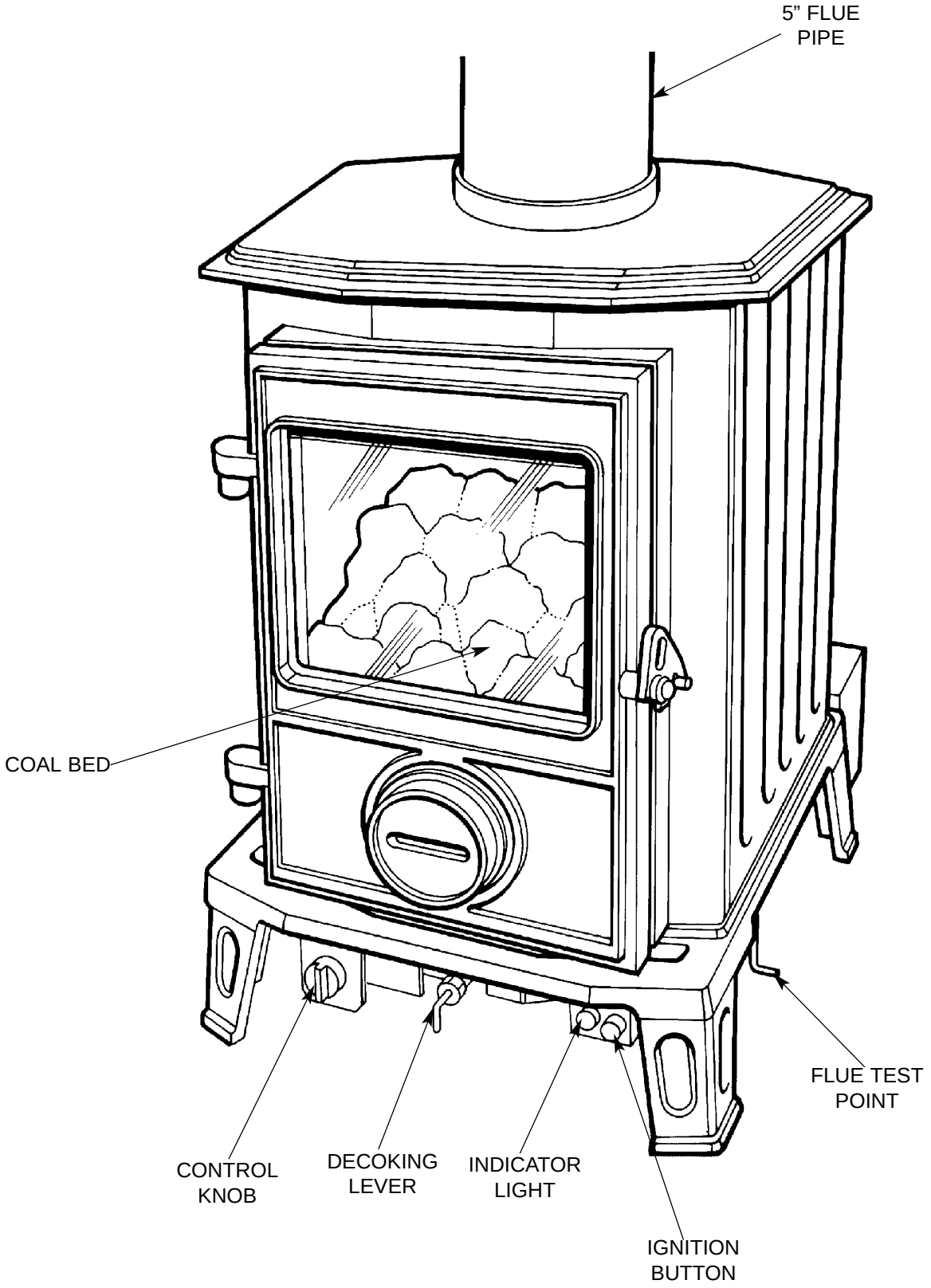
MAIN CONTROLS OF STOVE



DESN 512241

Consumer Protection

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

IMPORTANT NOTICE: Any alteration that is not approved by Aga-Rayburn could invalidate the approval of the appliance, operation of the warranty and could affect your statutory rights.

Health & Safety

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, Ceramic Fibre
May be harmful if inhaled. May be irritating to skin, eyes, nose and throat. When handling avoid 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.

Kerosene & Gas Oil Fuels (Mineral Oils)
1. The effect of mineral oils on the skin vary according to the duration of exposure.
2. The lighter fractions also remove the protective grease normally present on the surface of the skin. This renders the skin dry, liable to crack and more prone to damage caused by cuts and abrasions.
3. ‘Oil acne’ is recognised by the presence of skin rashes. The arms are most often affected, but may occur where there is contact with oil or oily clothing.
   - Seek medical attention for any rash.
   - Avoid skin contact with mineral oil or clothing contaminated with mineral oil.
4. Inhalation of mineral oil vapours must be avoided. Never fire the burner in the open as unburnt oil vapours are likely to occur.
5. Use a suitable barrier cream which will give you protection against mineral oil, lanolin based hand creams are usually very effective.
6. Never syphon mineral oils by use of the mouth. If accidentally swallowed, call a doctor, do not induce vomiting.

The complete installation must be carried out with due reference to the following Standards and Codes of Practice. It should be noted that the requirements and these publications may be superseded during the life of this manual.

BS 799 Part Five - Specification for Oil Tanks
BS 5410 - Oil Firing Installations Up To 44kW
Building Regulations -
Part J England and Wales
Part F Scottish Regulations
Technical Booklet L for Northern Ireland
Current IEE Wiring Regulations

Users

Guide

INTRODUCTION

We thank you for purchasing our product and trust it will provide many years of excellent service.

ALWAYS READ THESE INSTRUCTIONS BEFORE INSTALLATION AND SERVICING.

The Coalbrookdale Little Wenlock Oil Stove is a traditional cast iron stove designed to burn 28 Second Kerosene to BS 2869 Part 2 Class C2 as a room heater with an open flue.

In the interest of safety and to comply with the law, the installation of this appliance **MUST BE** in accordance with the relevant requirements of the current standards and Building Regulations (or local regulations). It must be fitted, commissioned and serviced by a competent person (e.g. OFTEC Trained Installer).

Failure to meet the relevant requirements can be hazardous and could lead to prosecution.

Due to newness, the stove may give off a slight smell for a short period after commissioning. This is quite normal and will disappear after a few hours of operation. Open windows and doors if required.

The stove has one access door as part of its design. The glass fronted door is for access to the coals and burner. Apart from initial commissioning of the stove, or in the case of periodic cleaning **UNDER NO CIRCUMSTANCES MUST THE STOVE BE OPERATED WITH THE DOOR OPEN OR IF THE GLASS IS CRACKED OR BROKEN**. A tool is provided to ensure the door is tightly closed.

The stove has been designed similar to a solid fuel stove to relevant safety standards, but during use, many parts of the appliance can become **HOT** to touch. We recommend that the user should provide and secure a fireguard complying with BS 6539 when the room is used by elderly, infirm or young persons.

NOTE: ALTHOUGH THE STOVE IS DESIGNED FOR ON/OFF OPERATION IT IS PREFERABLE TO OPERATE IT CONTINUOUSLY, BETWEEN HIGH AND LOW SETTINGS.
INTERMITTENT USE, ON A REGULAR BASIS COULD CAUSE CARBON DEPOSITS AND EXCESSIVE SOOTING AND THEREFORE, WILL REQUIRE MORE FREQUENT SERVICING.

Before installation of your stove, your installer should check that the chimney is sound, free from obstruction and clean. If a brick chimney is to be used for the stove it **MUST** be swept prior to the installation.

The chimney should be checked on a regular basis to ensure continued clearance of combustion products and that there is no accumulation of debris or soot etc.

The running cost of your stove is dependent upon many factors, and although it is possible to give fuel consumption figures of a stove at any set heat output these will have little relevance to the actual running cost of your stove because this will depend so much on the use made of the heat generated. The size and insulation properties of your home will obviously be a major influence, but consideration given to the way heat within the property is conserved and by the way in which the stove is operated may lower its fuel consumption while maintaining acceptable comfort levels. When the stove is turned on to heat a cold house, the time taken to give an acceptable temperature will depend not only on the volume of air but upon the cooling effect of the walls and furnishings within the house. These will generate cold draughts of air creating a chill factor, and giving the impression of the ambient temperature being lower than it actually is. Leaving the stove to run continuously at its minimum setting will alleviate this chill factor, and the actual temperature you find comfortable will be lower. The extra fuel used during continual running will be offset against increased comfort and lower acceptable ambient temperatures and may in some instances reduce the running costs of the stove.

Please note that the flame pattern will only be effective when the stove is running at maximum or near maximum output. On lower settings the coal bed will give a warming glow.

WORKING PRINCIPLES

The Coalbrookdale Little Wenlock Oil Stove produces heat by the process of burning Kerosene mixed with air in a vapourising pot burner.

Once lit a metered quantity of oil enters the pot where it is vapourised upon meeting the hot surface of the base of the pot.

Air is drawn into the pot by the natural action of the negative pressure in the chimney, which is maintained by ensuring adequate ventilation into the room where the stove is situated.

For efficient combustion there must be an appropriate balance between the air and oil supply. The air flow through the stove can vary with the chimney performance, to control this, a flue draught regulator is fitted to the rear of the appliance which allows air flow into the chimney when required.

The rate of oil flow into the burner is regulated by the control knob on the front of the stove. As the oil rate is increased more heat is produced which causes the chimney to pull more air through the burner pot to maintain an adequate ratio of fuel to air.

IMPORTANT NOTES - SAFETY

Combustible furniture or materials **MUST NOT** be placed closer than 1m in front of this stove.

Materials such as curtains **MUST NOT** be positioned above the appliance or to within 1m at the sides.

Clothing or other flammable materials **MUST NOT** be placed on the stove.

Blown vinyl wallpaper or similar materials, the types of material which have a raised pattern, are easily affected by heat and therefore may scorch or become discoloured close to a heating appliance. Please bear this in mind when installing this stove and when re-decorating.

Where applicable the door tool must be stored in a safe place out of reach of small children.

This appliance should under **NO** circumstances be

BEFORE LIGHTING THE STOVE

IF THE BURNER HAS BEEN OPERATING IN THE PAST TWO HOURS NO ATTEMPT MUST BE MADE TO RE-LIGHT THE BURNER OR OPEN THE DOOR UNTIL THE BURNER POT HAS COOLED.

LIGHTING THE STOVE

Ensure the oil line shut off valve is open, and the control lever on the oil control valve is in the up position. (See Fig. 1).

Switch on electricity supply.

Turn the control knob on the front of the stove to the '**LOW**' position and press and hold the ignitor button until the oil ignites, this will be observed through the aperture in the coal bed. The indicator light will illuminate to show that the ignition system is operating and the oil will normally light within one minute, when the ignition button should be released. (See Fig. 2).

If the burner fails to light after two minutes, turn the control knob to 'off' and refer to the fault finding section.

WARNING: Should the stove go out or be turned off **DO NOT** attempt to re-light it while the burner pot is hot. When it is cold follow the lighting procedure above.

If the control valve is accidentally left in the LOW, MED or HIGH position when the burner is not alight, oil will be present in the burner pot. This must be syphoned off and the burner wiped dry before lighting.

TURNING THE STOVE OFF

Turning the control knob on the front of the stove to '**OFF**' will stop the flow of oil from the oil control valve and will cause the burner to extinguish. (See Fig. 2).

When leaving the stove off for a prolonged period the oil line shut off valve should be closed.

NOTE: THE STOVE MUST NOT BE OPERATED WITH THE DOOR OPEN.

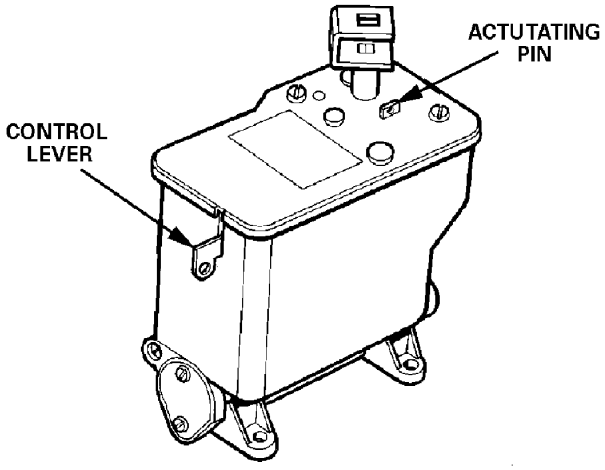


Fig. 1 DESN 512211

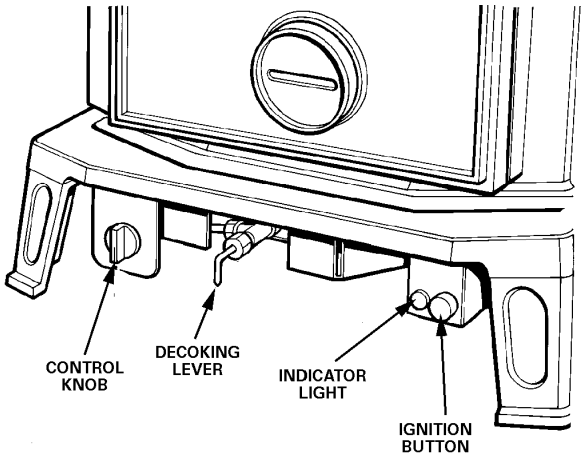


Fig. 2 DESN 512201

LIGHTING THE STOVE IN A POWER CUT

1. Open stove door to gain access to the fuel bed.
2. Remove fuel bed (See Fig. 17).
3. Place small piece of firelighter (paraffin based e.g ZIP) onto base of pot and light. (See Fig. 16).
4. Replace fuel bed and close door.
5. Turn control knob on front of stove, to the **LOW** position.
6. Should the stove extinguish. **DO NOT** attempt to re-light, while the burner pot is hot.

   When it is cold, repeat the lighting procedure above.

WEEKLY MAINTENANCE

To ensure the burner is operating efficiently and capable of its maximum output, the fuel inlet to the burner will need to be kept free of carbon deposits by operating the decoking lever weekly. This is accomplished by rotating the lever whilst withdrawing it no more than 35mm. When the operation is complete, the lever must be pushed fully in. (See Fig. 3).

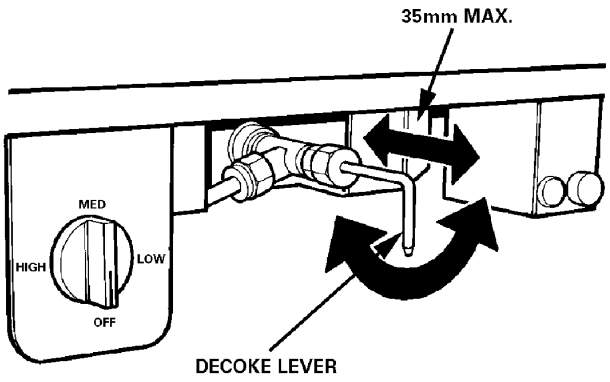


Fig. 3 DESN512200

A sudden loss of burner capacity may be caused by low fuel levels or dirt in the fuel causing the oil metering valve to block . This can be cleared by turning the control knob to **HIGH** and pressing the actuating pin of the valve, smartly several times. (See Fig. 4).

The chimney should be checked on a regular basis to ensure continued clearance of combustion products and that there is no accumulation of debris or soot etc.

NOTE: ALTHOUGH THE STOVE IS DESIGNED FOR ON/OFF OPERATION IT IS PREFERABLE TO OPERATE IT CONTINUOUSLY, BETWEEN HIGH AND LOW SETTINGS.
INTERMITTENT USE, ON A REGULAR BASIS COULD CAUSE CARBON DEPOSITS AND EXCESSIVE SOOTING AND THEREFORE, WILL REQUIRE MORE FREQUENT SERVICING.

When the stove is not in use on low fire settings over night, it would be beneficial to the cleanliness of the burner components to occassionally run the stove on low setting for a few hours to allow any build up of carbon to burn off.

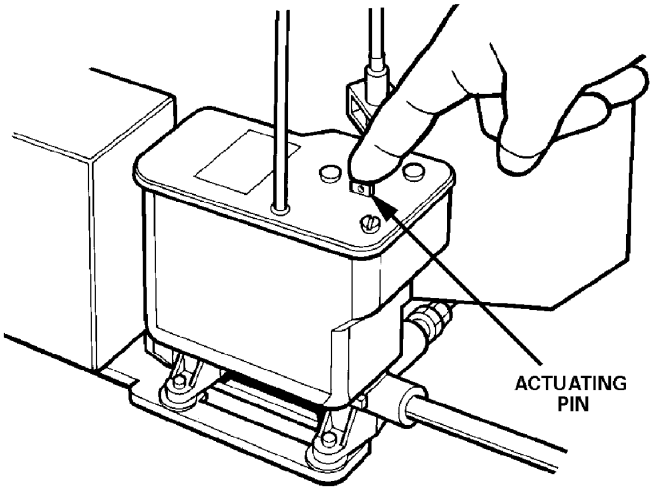


Fig. 4 DESN 512202

CLEANING YOUR OIL STOVE

THE GLASS

The glass in your stove is specially formulated to withstand the very high temperatures generated within the stove and proprietary glass cleaners are not recommended as their compositions may contain chemicals that will weaken or etch into the glass.

Kitchen roll/paper towel moistened with water to which a little vinegar has been added will normally remove most staining. Great care must be taken to clean the glass very gently as particles of grit may have adhered with the stain and these could cause scratching if dragged across the glass.

However well the stove burns it will become necessary to clean the glass but if cleaning becomes necessary too often we advise you to review your operating procedures to determine whether cleaner and more efficient combustion can be achieved.

DO NOT USE MAN-MADE FABRICS TO CLEAN GLASS AS THESE MAY MARK THE GLASS.

The flame effect of the stove may deposit some soot in the coals, or back of the stove. This is quite normal and need not be cleaned off. Your Service Engineer will deal with any soot during the periodic servicing call.

THE STOVE BODY

If it is required to clean the casing of the stove whilst on, turn the control to low fire and allow to cool for an hour. As the stove will still be hot care should be taken not to touch the surface with bare skin.

Stoves with a cast matt black finish must never be cleaned with a cloth as the texture of the paint will “abrade” and collect lint from the cloth, which will be almost impossible to remove.

BRASS FITTINGS

Any proprietary brass cleaner may be used to clean the brass on the stove, but care must be taken to ensure the polish does not come into contact with the black cast finish. where it will leave a stain.

WARNING: THE SIMULATED COALS, SUPPLIED WITH THE APPLIANCE, ARE A SPECIAL MATERIAL AND IS THE ONLY TYPE THAT CAN BE USED. UNDER NO CIRCUMSTANCES USE EXTRA COALS OR PUT OTHER MATERIAL ON THE FIRE BED.

UNDER NO CIRCUMSTANCES, TRY TO RECOLOUR THE COALS WITH PAINT.

FAULT FINDING

SYMPTOMS	CAUSES
1. Stove will not light.	Oil control valve lever not set (See Fig. 1) Shut off in oil supply line closed. Fire valve tripped. No oil in tank. Water contamination in oil supply. Air lock in oil supply pipework. Oil filter blocked. Faulty oil control valve. Electrical supply off. Carbon deposits blocking oil inlet.
2. Oil present in bottom of burner when stove off.	Oil control left in LOW-MED-HIGH position without burner being lit. *Syphon oil from burner and wipe dry before lighting.*
3. Smoky flame pattern	Flue temperature too low for oil rate setting - turn to lower setting and allow flue to warm up. Stove door not closed. Faulty rope seal on door. Damaged or out of position catalyser. Abnormally high or blustery wind conditions. Flue stabiliser incorrectly adjusted. Flue stabiliser sticking. Very heavy carbon deposits in burner. Incorrect grade of oil in use. Restricted or blocked flue.
4. Burner goes out on LOW setting	Abnormally high wind conditions Flue stabiliser incorrectly set. Flue stabiliser sticking. Oil inlet restricted.
5. Burner goes out and will not relight	No oil in tank. Fire valve tripped. Oil valve control lever tripped (See Fig. 1). Water contamination in oil supply. Blocked filters. Blocked oil supply pipe. Shut off valve in oil supply pipe shut.
6. Burner overactive/noisy on HIGH setting	Stove door not closed properly. Faulty rope seal on door. Flue stabiliser sticking.
7. Flame picture reduced on HIGH setting	Restricted oil flow. Burner oil inlet requires de-coking (See Fig. 2). Partial blockage in oil metering stem - operate actuating pin (See Fig. 1). Flue stabiliser sticking. Adverse atmospheric conditions.

Installation and Servicing Section

THIS APPLIANCE IS A CONTROLLED SERVICE BY DEFINITION AND REQUIRES EITHER FITMENT UNDER THE REMIT OF BUILDING CONTROL OR INSTALLATION BY AN OFTEC REGISTERED 105 TECHNICIAN (CLASSED AS A COMPETENT PERSON) WHO CAN SELF-CERTIFY HIS OWN WORKS.

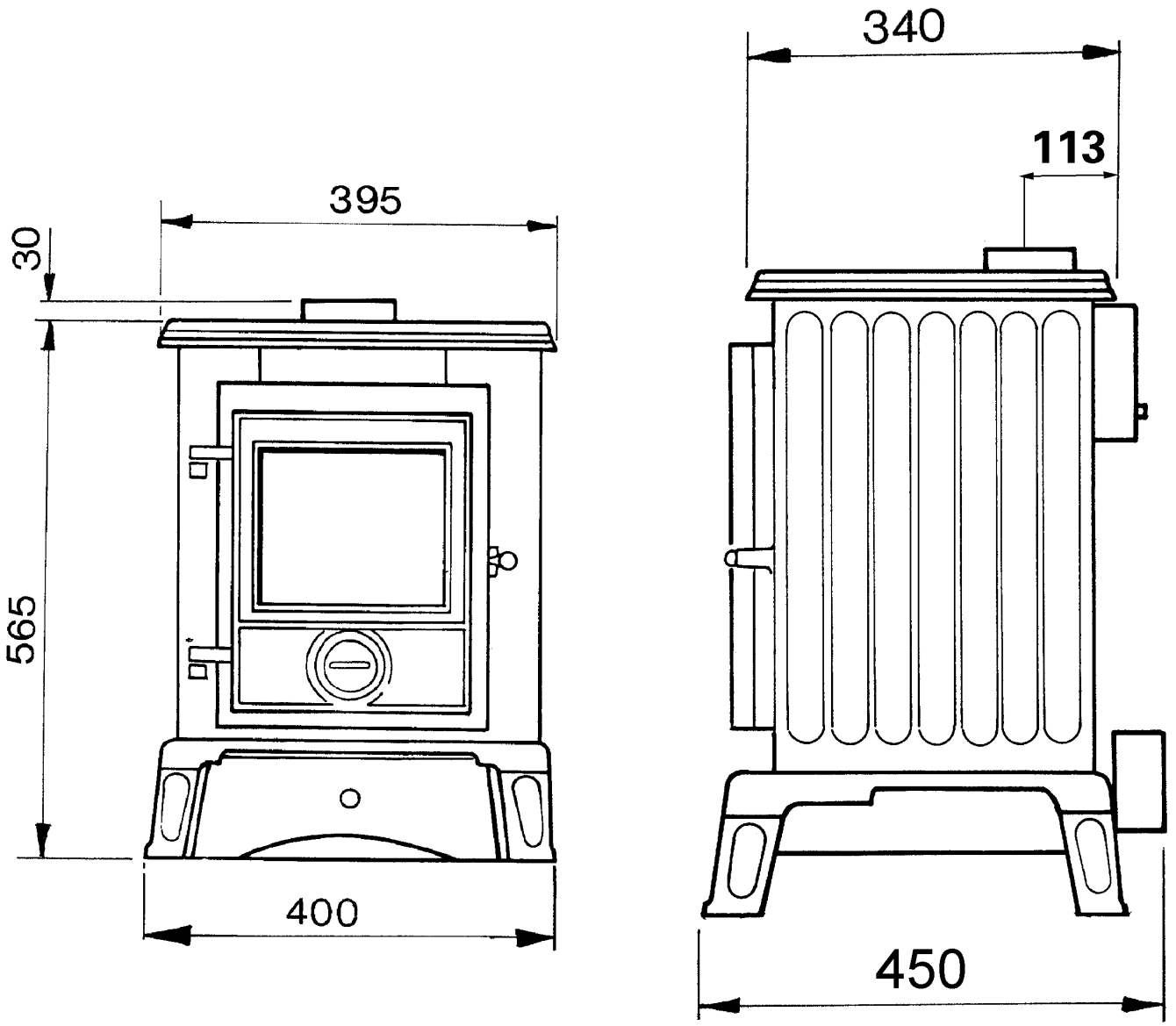


Fig. 5

SPECIFICATIONS

	LOW	HIGH
FLOW RATE - cc/Min	4.5	12
INPUT - kW	2.78	7.3
OUTPUT - kW	1.9	5

FUEL Kerosene
to BS 2869 Part 2 Class C2

FLUE OUTLET Dia 127mm (5 ins)
Min Height - 4.6m
Min. pull - 1.50 mm H_2O
Max pull - 5.0 mm H_2O

OIL INLET 10 mm pipe (min)

WEIGHT 70 Kg

LOCATION

See Building Regulations J/1/2/3
(See Fig. 6)

To obtain maximum heat input into the room it is an advantage not to install in a recess.

However, if the appliance is to be fitted into a recess then the minimum dimension (shown in Fig. 6) should allow the optimum output into the room. To ensure an adequate air circulation it is recommended that the recess should not be more than 300 deep.

The appliance must be on a hearth of solid non-combustible material extending to at least 225mm in front of the stove and 150mm beyond each side of the stove (REFER TO BUILDING REGULATIONS - SECTION 6).

The stove must sit perfectly level.

The rear wall must be of non-combustible material and there must be an air gap of at least 50mm. See Fig. 7.

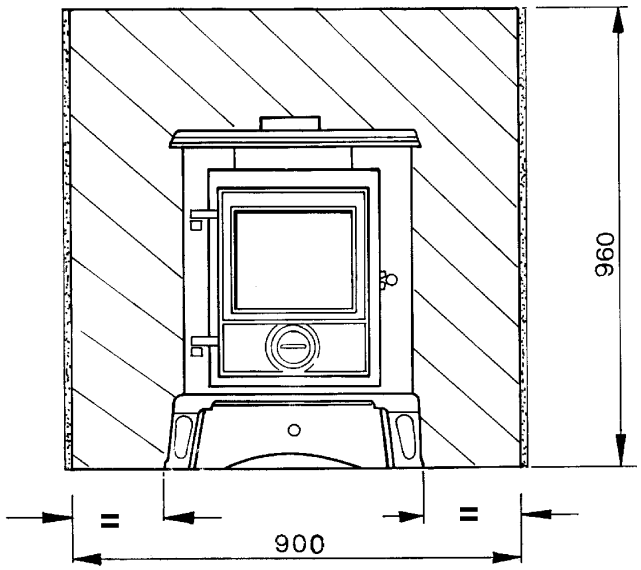


Fig. 6 DESN 512205

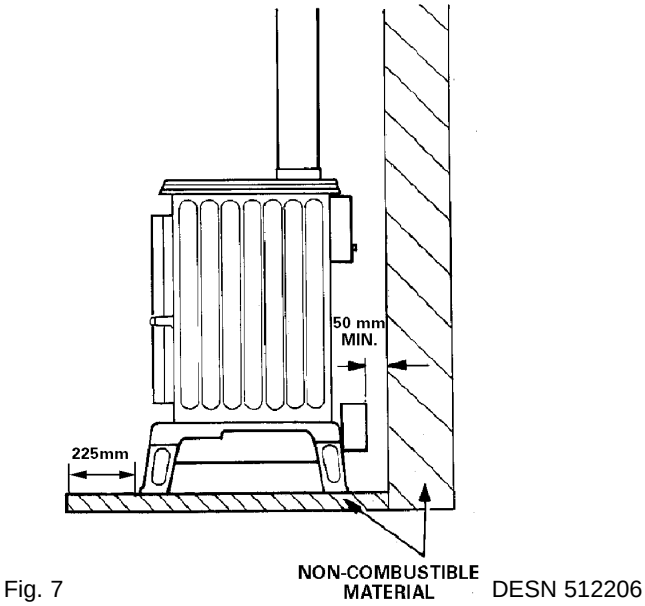


Fig. 7 DESN 512206

FLUE SYSTEM

See Figs. 8 & 9

The flue system must be installed in accordance with the regulations in force.

Before installation of your stove your installer should check that the chimney is sound, free from obstruction and clean. If a brick chimney is to be used for the stove it **MUST** be swept prior to the installation.

Detailed recommendations for flueing in England and Wales are given in Part J of the Building Regulations. For Scotland in Technical Standard F to the Building Standards and in Northern Ireland in Technical Booklet L to the Building Regulations. Guidance is also given in BS 5410: Part 1.
Due to the range in flue gas temperature a brick chimney should be fitted with a suitable multi fuel stainless steel flexible liner. Where it is necessary to avoid condensation, such as an exposed end gable, an insulation such as vermiculite, should be back filled between the flexible liner and the full length of the brickwork.

See Building Regulations J/1/2/3 and BS 5410 Part 1

The stove is designed to operate with a class 1 flue, 127mm internal diameter. The flue should never be less than 127mm diameter.

For correct performance of the appliance the flue should be greater than 4.6m high with a minimum pull of 1.5mm H_2O and a maximum pull of 5mm H_2O.

For conditions above 5mm pull, an additional stabiliser should be installed in the flue **(in the same room)**.

The flue should have provisions for inspection and cleaning with airtight seals.

It is important that any material used in the building of a flue meets the relevant standards.

Moisture and acid resistant liners BS 1181.
Imperforate clay flue pipes BS 65.

The flue pipe from the stove should be:
a) Mild steel with a wall thickness of 3mm minimum.
b) Stainless steel to BS 1449 Part 2.
c) Cast iron to BS 41.
d) Mild steel acid resistant vitreous enamel lined to BS 1344 Part 2.

Whatever the choice of flue there must not be any horizontal runs and joints must be airtight.

CHIMNEY TERMINATION

All chimneys should terminate above roof level in accordance with the Building Regulations J 1/2/3 and statutory requirements as outlined in BS. 6461 Part 1 and BS 7566 Parts 1 to 4.

An Anti-Down Draught Cowl (that conforms to British Standards must be fitted).

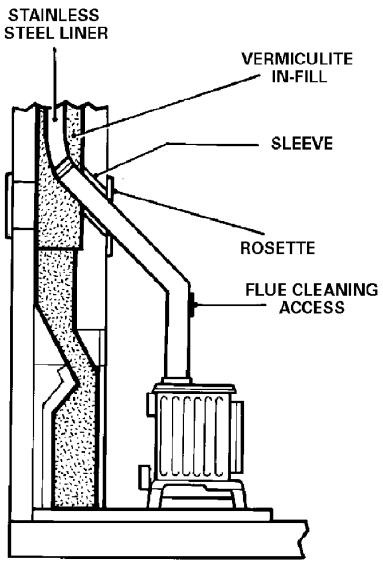


Fig. 8 DESN 512198

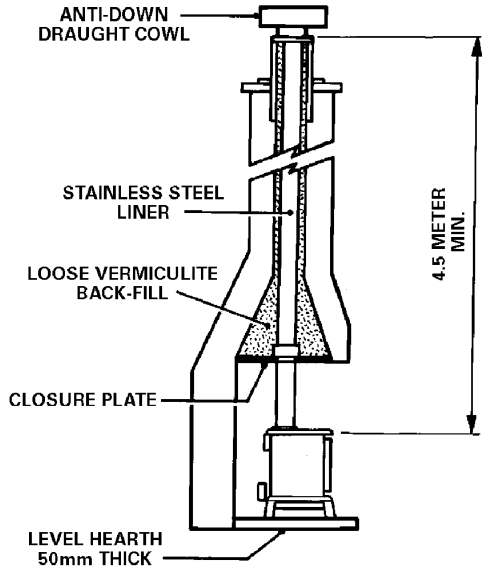


Fig. 9 DESN 512219

AIR SUPPLY

See Building Regulations J 1/2/3 Section 4.

1. Extractor fans (if existing) should be positioned as far away from the open flue as possible and should have a sufficient dedicated air supply. To undertake a test, the oil fired appliance should be set in operation and the doors and windows of the room containing it should be closed. The extractor fan should then be run at its maximum setting. The oil fired heating appliance should be observed to operate satisfactorily both before and after the fan is switched on.

2. It is preferable that the air supply for an extractor fan should be located where it can serve the fan without the air stream passing close to the oil fired appliance.

3. Oil fired appliances **MUST** not draw combustion air from a garage.

OIL PIPE LINE

BS 5410 Part 1

1. Oil pipe, fittings, filter etc should comply to the standards.
2. The pipe line **MUST** be of suitable size (10mm diameter is usually sufficient) to ensure that maximum flow rate can be achieved (other appliances should be accounted for).
3. 5-10 micron oil filter **MUST** be fitted in the pipe line.
4. A manual operated valve positioned as close to the tank as possible.
5. A fire valve should be fitted as close to the point where the pipe line enters the building.
6. It is advisable that a manual shut-off valve be fitted in the same room as the appliance.

OIL STORAGE & SUPPLY

See Figs. 10 & 11

For minimum and maximum heights of the oil storage tank.

The mild steel oil storage tank should be manufactured to BS 799 Part 5.

Plastic oil tanks are covered by OFTEC Standard OFST100.

The minimum recommended oil tank size is 1400 litres (300 gallons).

Codes of practice governing installation are covered by BS 5410 Part 1.

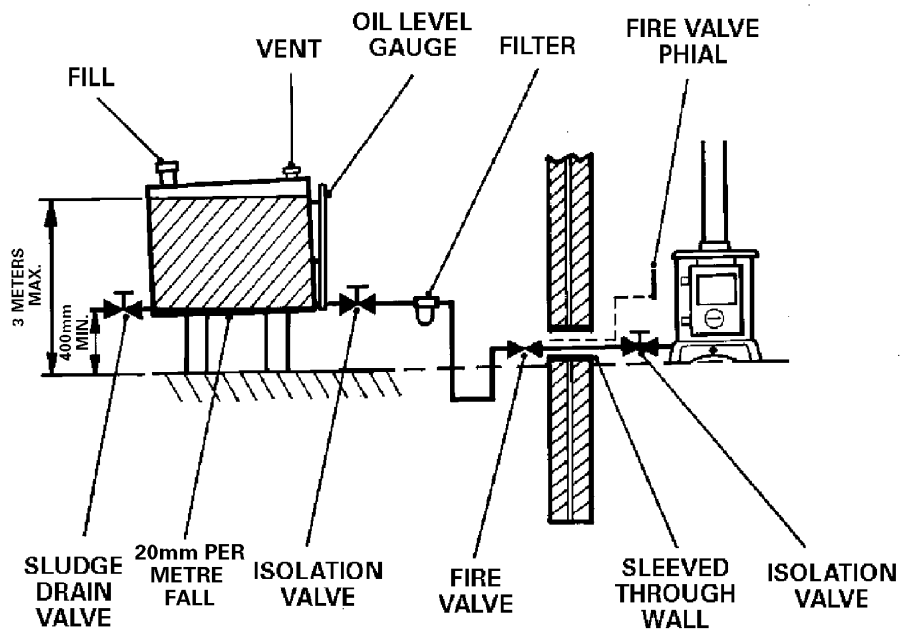
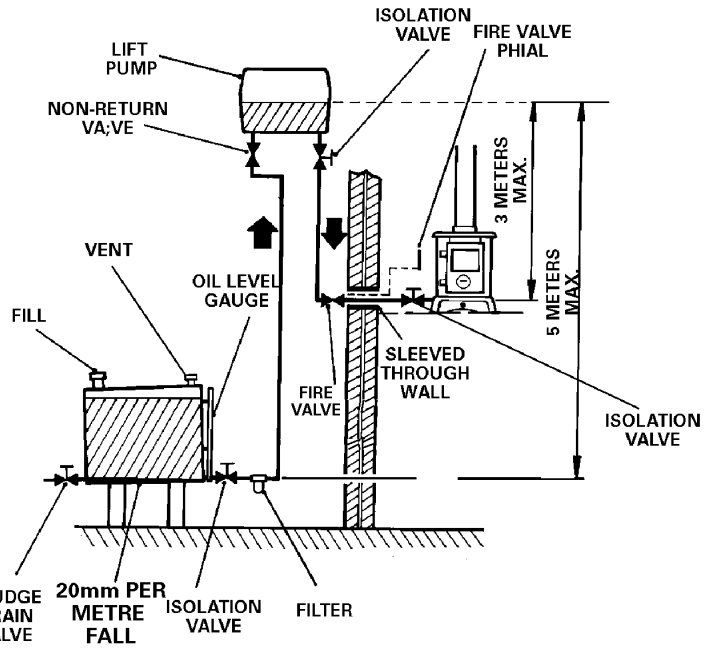


Fig. 10 DESN 512197



INSTALLATION REQUIRING OIL LIFTER

Fig. 11 DESN 512196

INSTALLATION

SEE FIG. 12

1. Position the stove on the hearth. Ensure it sits perfectly level. Check with spirit level placed on top of burner pot both left to right and front to rear.

   Shim under feet to effect this.

   Excessive out of level may require correction to the hearth before installation can be completed.

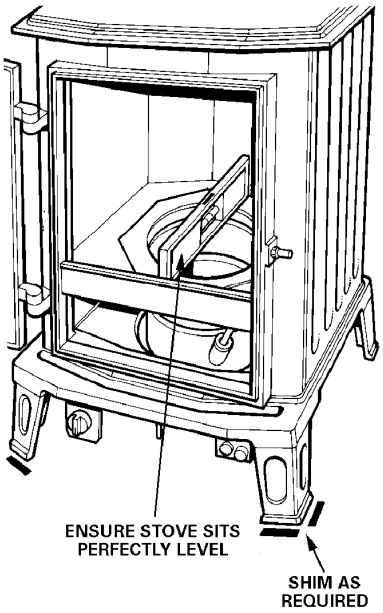


Fig. 12 DESN 512214

2. Connect copper feed pipe to the oil control valve. Ensure the fire valve phial is located in the clips on top of the transformer cover. (See Fig. 13)

   With the control knob in the **OFF** position, lift the lever on the oil control valve then turn oil supply on, check for leaks.

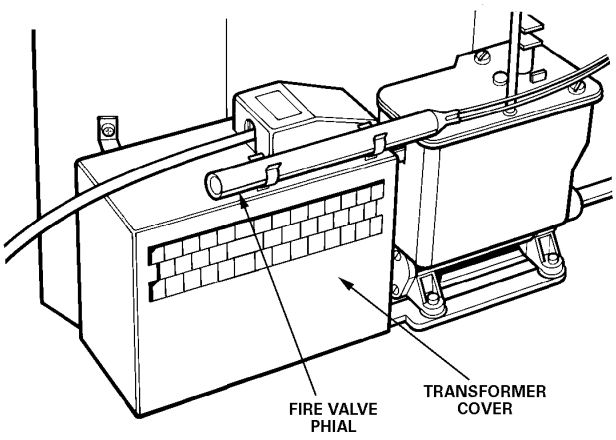


Fig. 13 DESN 512203

FLUE CONNECTION

SEE FIG. 14

Connect the flue to the stove making sure that the connection is airtight, using rope seal and cement.

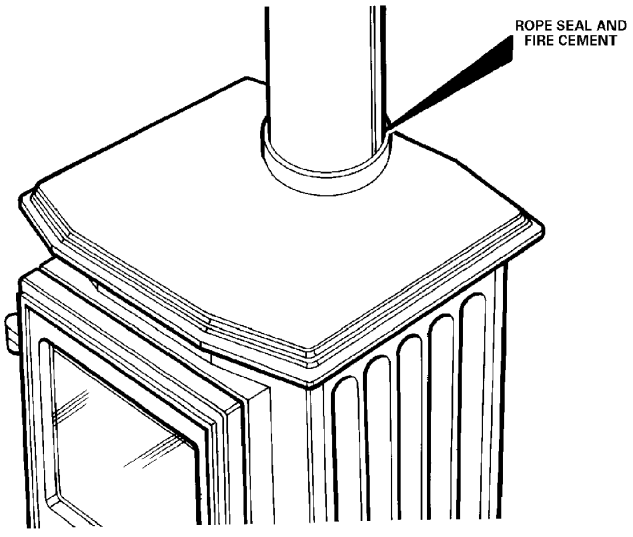


Fig. 14 DESN 512212

THROAT PLATE

SEE FIG. 15

Ensure the throat plate is correctly located inside the appliance and is supported on the three internal location lugs.

FLAME RING AND CATALYSER

SEE FIG. 16

Place the catalyser into the burner pot ensuring the legs do not foul the glow plug.

Locate the flame ring into the pot ensuring it is fitted domed face up. **(Note: Flame ring is stamped 'face up')**.

ELECTRICAL SUPPLY

Wiring external to the appliance must be installed in accordance with current National Wiring Regulations and any local regulations which apply. The appliance is supplied for 230 Volt - 50 Hz a fuse rating of 3 amps max. The method of connection to the mains supply should facilitate complete isolation of the appliance, by the use of a fused double pole switch having a contact separation of at least 3mm serving only the appliance. The point of connection to the mains should be readily accessible and adjacent to the appliance. The installation should be protected by a 30mA Residual Current Circuit Breaker (RCCB).
The minimum requirement for the power cable is that it should be a 3 core PVC sheathed flexible cord (85ÞC min) at least 0.75mm^2 (24 x 0.2mm) to the relevant standard.
The supply cord must not exceed 2 metres.

OIL CONTROL VALVE

The oil control valve performs three operations within its main body: it regulates with a float valve the depth of oil held, it meters with an adjustable outlet, the fuel supplied to the burner, and its float valve will isolate the fuel should the levels within the valve body become too high.

The oil control valve is factory set for high and low settings and should not require adjustment.

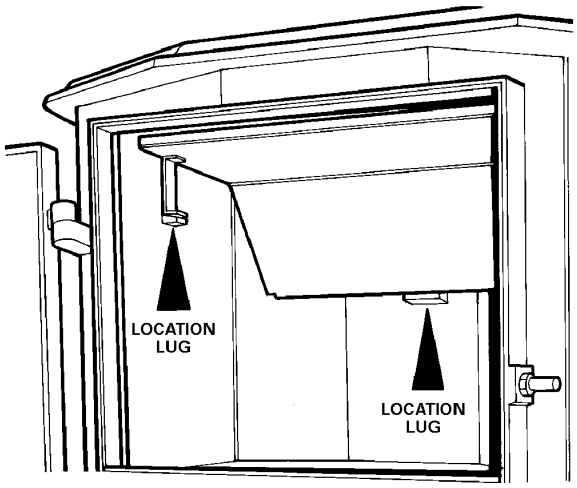


Fig. 15 DESN 512204

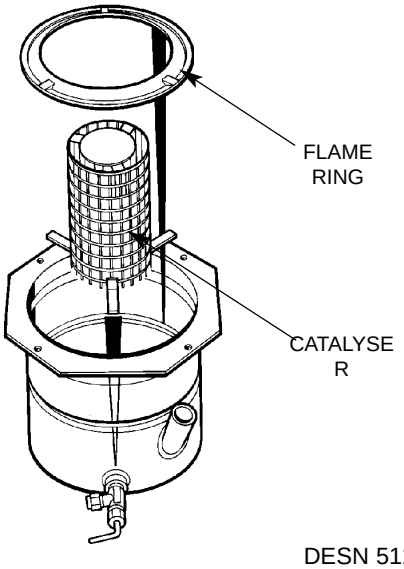


Fig. 16 DESN 512207

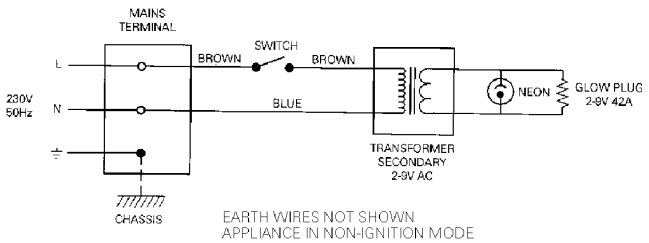
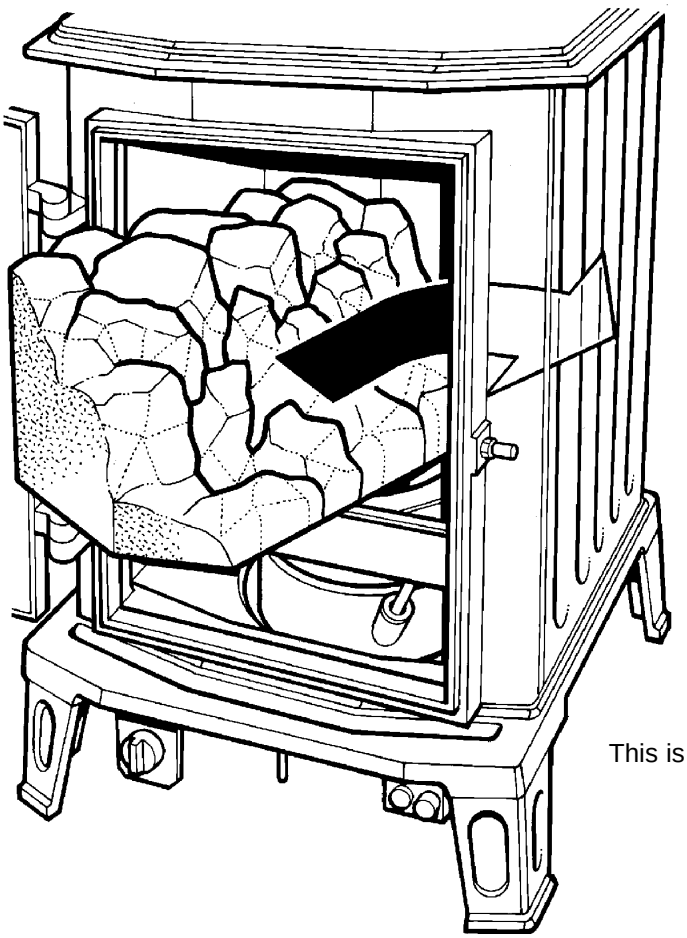


Fig. 16A

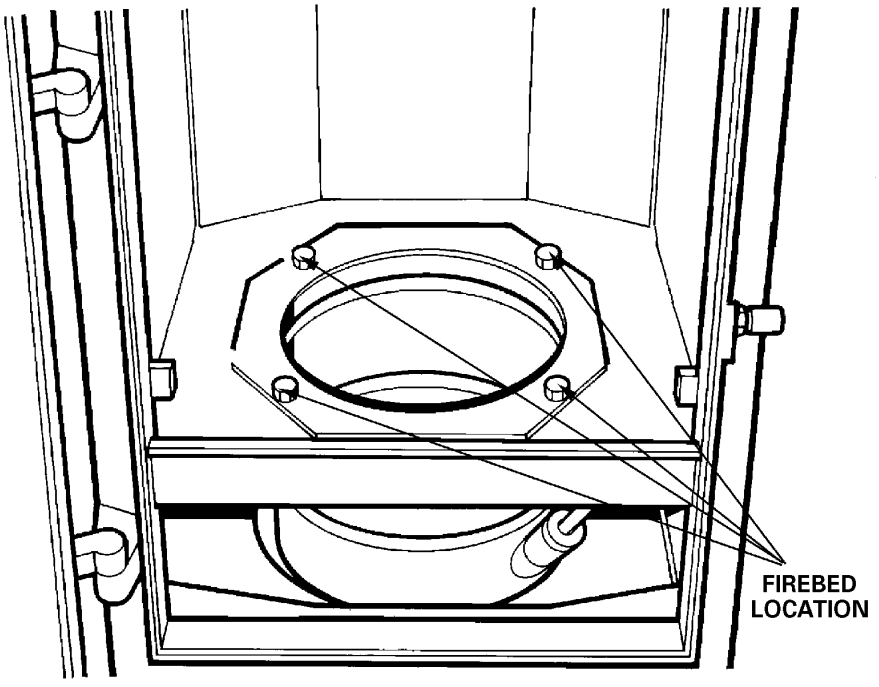
THE FUEL BED



This is offered in at 45Þ and turned as it enters.

Fig. 17

DESN 512213



NOTE: The underside of the bed is relieved to locate on the four burner securing screw heads

Fig. 18

DESN 512215

COMMISSIONING

In the interests of safety and to comply with the law, the installation of the Little Wenlock Oil Stove **MUST BE** in accordance with the relevant requirements of the current Standards and Building Regulations (and local regulations). It must be installed, commissioned and serviced by a competent person (e.g. **OFTEC** Trained Engineer).

In order to achieve the best result from the stove, commissioning should not be undertaken in abnormally high wind conditions.

Inspection of the installation should carried out to ensure all work is complete and of the required standard. The stove must not be commissioned if any aspect of the installation fails to comply with the relevant standards and regulations.

Before lighting the stove, the entire oil feed pipework from the supply tank to the stove should be checked for soundness.

Light the stove in accordance with the instructions provided. Once the fire has established, a pressure reading should be taken using the pressure test point indicated in Fig. 19. The pressure should be monitored at 10 minute intervals to ensure the flue is operating with a negative draught. As the flue temperature increases it will induce a greater 'pull' and the control knob can gradually be turned up through **MED** to **HIGH**.

The stove should now be run on **HIGH** for at least 30 minutes to achieve its proper working temperature. The flue draught stabiliser (Fig. 20) can now be set to give the correct negative pressure within the stove, using a suitable manometer.

There may be a variety of atmospheric influences that can affect the flame picture relating to any particular installation, therefore it is not possible to give an exact figure for the flue stabiliser that will suit all applications, but as a guide a manometer reading of between 1.50 and 1.80mm H_2O (0.06 - 0.07 inches H_2O or 150 - 170 microbar) = (0.150 - 0.175 mbar) should be the limits within which a visually acceptable and clean flame pattern can be achieved. After setting the stabiliser ensure the locknut is tightened.

During commissioning a white film may appear on the inside of the door glass, this is due to the inner painted surfaces and the coal bed curing process. The stove should be turned to **LOW** and allowed to cool down before wiping with paper towels or similar.

It is advisable to wear heat resistant gloves when carrying out the above operations.

NOTE: DO NOT USE MAN-MADE FABRICS AS THESE COULD MARK THE GLASS.

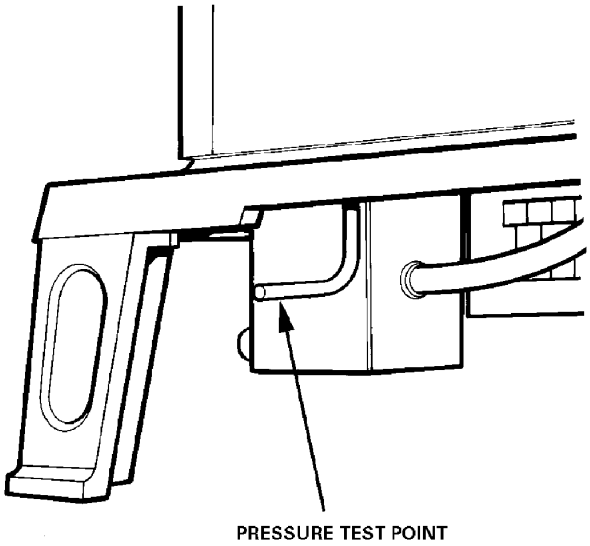


Fig. 19 DESN 512199

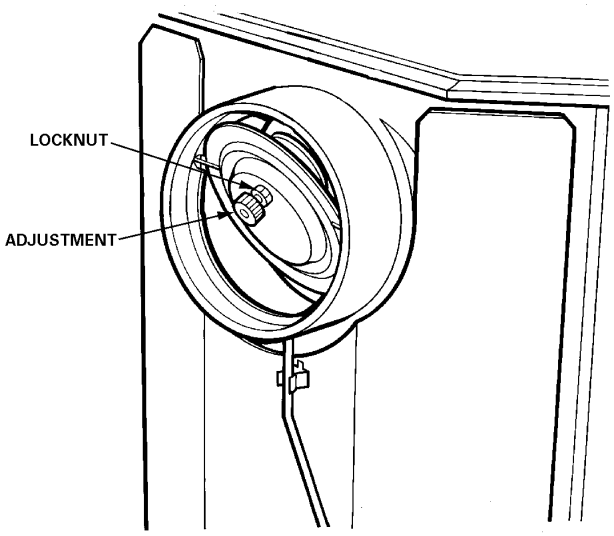


Fig. 20 DESN 512208

It may be found in some installations, due to local conditions, that even though the oil flow rates are factory pre-set, some fine-tuning may be required.

This can only be done by visual assessment of the flame pattern, as it is not possible to measure the oil flow rate on the stove.

Adjustment should only be carried out after the flue has been allowed to reach working temperature and the flue draught stabiliser has been correctly set. The stove door must be closed.

The **HIGH** fire adjustment screw is on the front left of the oil control valve (See Fig. 21).

The **LOW** fire adjustment screw is towards the centre of the valve (See Fig. 21).

DO NOT adjust these screws more than 1/8 turn at a time and allow five minutes for the new setting to establish before further adjustment.

To increase flow, turn adjustment screw anti-clockwise.
To reduce flow, turn adjustment screw clockwise.

HIGH FIRE

With the flue at the correct temperature and the flue pull set, intermittent flames should be observed through the coal bed. (Flame length approximately 25 - 30mm). (See Fig. 22A).

If continuous flames are seen through the majority of the flame ports, (See Fig. 22B), this indicates too high oil rate and the stove will not be operating at maximum efficiency. This condition could also cause sooting of the door glass and lead to premature service intervals.

After the high fire setting has been achieved, the stove must be turned off. Wait for the burner to extinguish.

Using ***heat resistant gloves***, remove the coal plaque and put it in a safe place.

NOTE: It will be **VERY HOT** and must be placed on a *heat resistant* surface.

Ensure the bottom of the burner pot is cool, relight the stove. **NOTE:** The flame ring and catalyser must be in position.

Turn the control knob to **LOW** and allow any surplus oil from the lighting procedure to burn off.

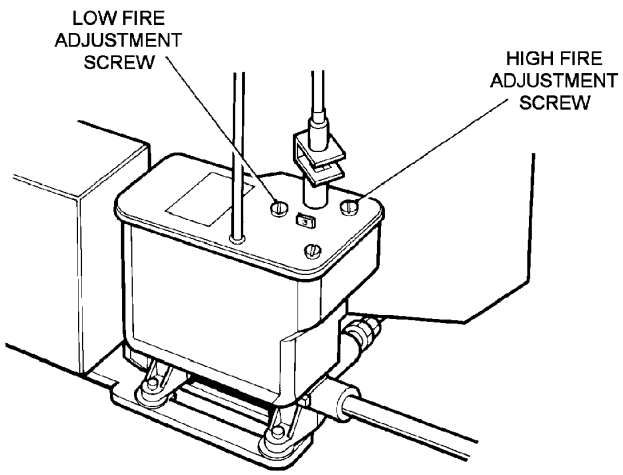
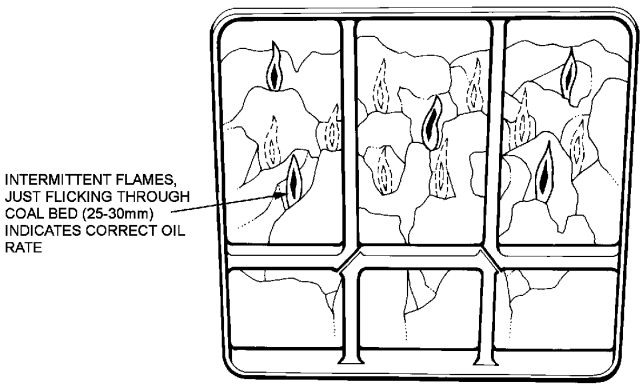
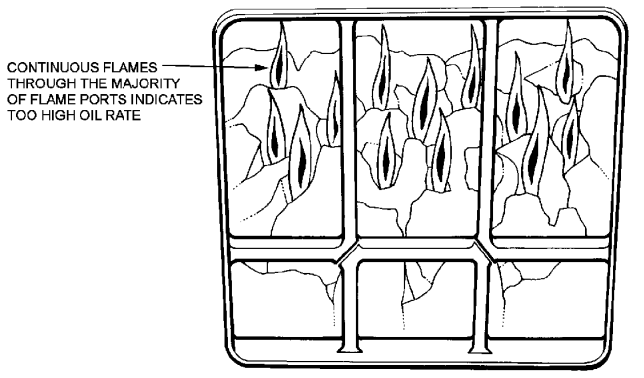


Fig. 21 DESN 512974



CORRECT HIGH FIRE SETTING

Fig. 22A DESN 512953



INCORRECT HIGH FIRE SETTING

Fig. 22B DESN 512973

LOW FIRE

Correct **LOW** fire setting is when a *blue* flame pattern is observed all around the burner, just below the flame ring. (See Fig. 23). It will be observed that the mesh wall of the catalyser is glowing cherry red. There may be some slightly yellow flames to the front right hand side of the burner, due to the ingress of air around the glow plug. This is permissible.

If only orange coloured flames are present in the bottom of the burner pot, this indicates too low an oil rate and will cause sooting.

To increase oil flow rate, turn the adjusting screw as previously described, anti-clockwise, 1/8 turn at a time, until the correct *blue* flame pattern is achieved. Ensure time is allowed for any new setting to take effect before further adjustment.

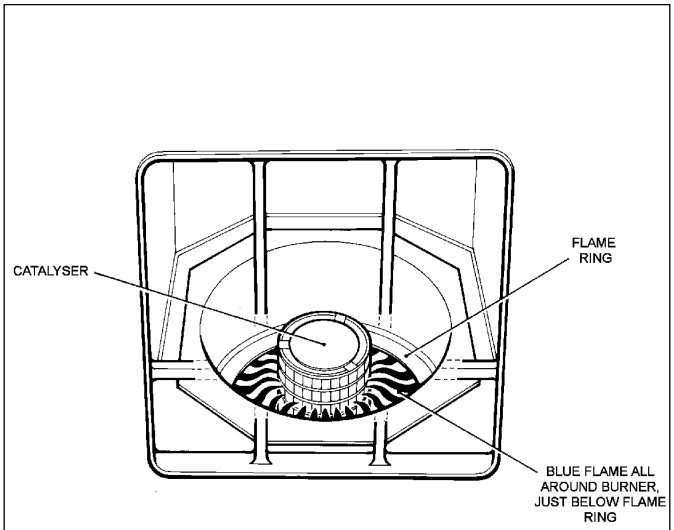


Fig. 23 DESN 512954

INSTRUCT THE USER

1. Instruct the User in the correct lighting procedure of the stove.

2. Emphasis that the stove has been designed as an ‘on/off’ appliance but it is preferable to operate it continuously between **LOW** and **HIGH** fire. Intermittent use could reduce the period between servicing.

3. Explain the weekly maintenance and cleaning procedures, and advise the User that for continued efficient and safe operation of the stove, it is important that adequate servicing is carried out at regular intervals.

4. Hand the Owners Manual to the User and demonstrate the correct operation of the controls.

5. Leave the Owners Manual Instructions with the User.

ANNUAL SERVICING

Servicing shall be carried out by a competent person (e.g. OFTEC trained)

1. Isolate from electricity supply before service commences.
2. Remove coal bed - check condition. Vacuum to remove any soot.
3. Remove flame ring and catalyser from burner pot, inspect condition and clean.
4. Remove throat plate, clean off any soot deposits.
5. Examine flue for signs of sooting, if evident flue should be swept.
6. Check all flue joints and reseal if necessary.
7. Examine glow plug for deposits/damage.
8. Clean oil inlet union and de-coke lever.
9. Clean inside of burner pot (wire wool/wire brush) vacuum/wipe.
10. Clean all deposits from inside of fire box.
11. Check and clean draught stabiliser.
12. Clean and inspect door glass (replace if damaged/cracked).
13. Check condition of rope seals (replace if necessary).
14. Examine door hinge pins and door catch for wear.
15. Examine oil storage tank and fittings for leakage.
16. Examine oil line filter and clean or replace as necessary.
17. Examine oil line filter shut off valves and fittings for evidence of leakage.
18. Check operation fire valve.
19. Re-fit catalyser, flame ring (dome up), throat plate and coal bed into stove.
20. Light the stove in accordance with the lighting instructions.
21. Run on HIGH for at least 30 minutes then check flue draught stabiliser settings as described in ‘COMMISSIONING’.

For further advice or information contact your local distributor/stockist

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

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