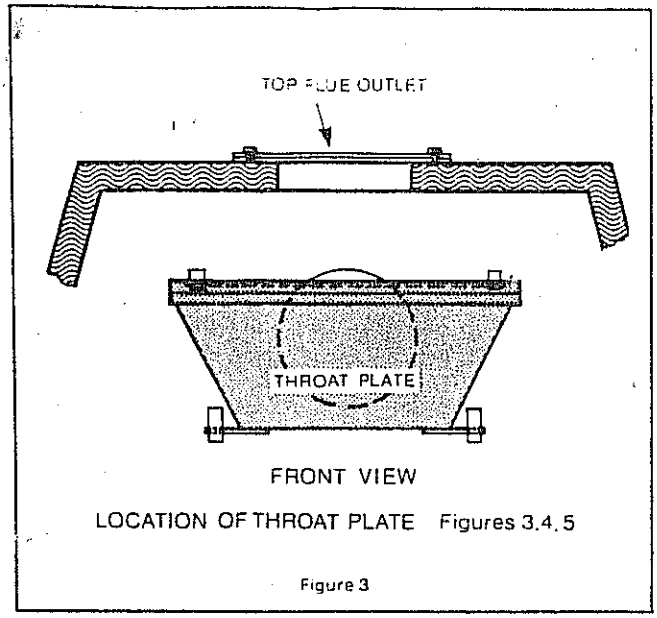
INSTRUCTIONS FOR THE INSTALLATION AND OPERATION OF YOUR HUNTER MIDI STOVE WITH WRAPAROUND BOILER

HUNTER STOVES LTD

Please hand these instructions to the stove user when the installation is complete, leave the system ready for operation and instruct the user in the use of the appliance and operation of controls.



LOCATION OF THROAT PLATE Figures 3.4.5

Figure 3

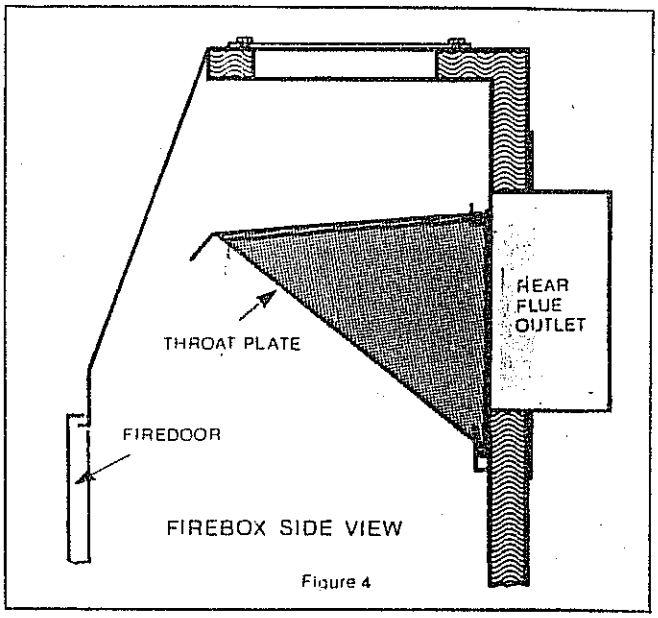


Figure 4

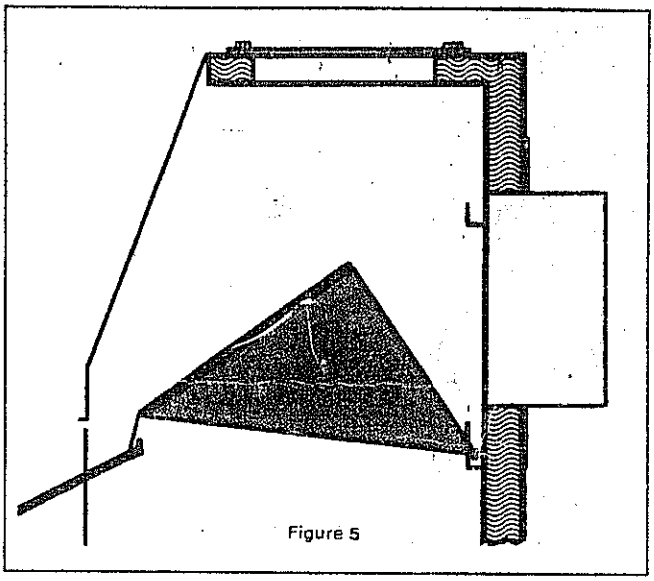
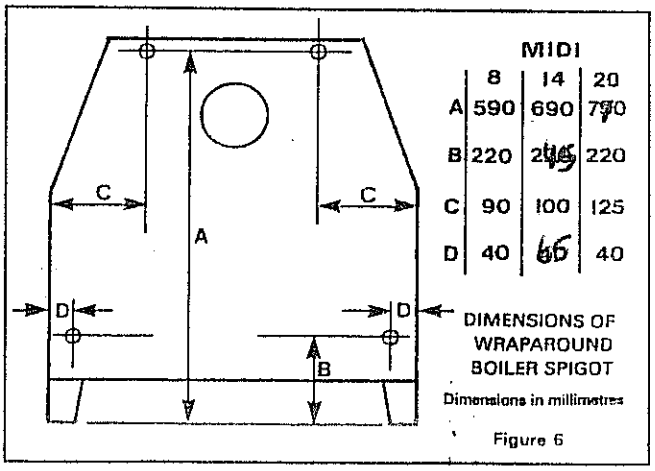


Figure 5



MIDI	8	14	20
A	590	690	790
B	220	295	220
C	90	100	125
D	40	65	40

DIMENSIONS OF WRAPAROUND BOILER SPIGOT

Dimensions in millimetres

Figure 6

INSTALLATION

CHIMNEYS

Check that the chimney is in good condition, dry and free from cracks and obstructions. The diameter of the flue should be not less than 180mm and not more than 230mm. If any of these requirements are not met, the chimney should be lined by a suitable method. The chimney height and the position of the chimney terminal should conform to Building Regulations. A flue draught of minimum 1.5mm to a maximum of 2.5mm water gauge is required for satisfactory appliance performance. The flue draught should be checked before installation and if it exceeds the recommended maximum, a draught stabiliser should be fitted so that the rate of burning can be controlled, and to prevent overfiring.

If you have any doubts about the suitability of your chimney consult your local Solid Fuel Advisory Service office.

CONNECTION OF STOVE TO CHIMNEY

The chimney should be swept before connection to the stove.

An existing fireplace opening can be bricked up or sealed with a register plate (Figures 2 A, C). A short length of flue pipe of a minimum 150mm internal diameter may then be used to connect the stove to the chimney. This flue pipe should be of cast iron - thickness 4.75mm, 316 grade stainless steel, or vitreous enamelled steel, nominal thickness 1mm. Ensure that the pipe end is no closer than 76mm to the side or rear chimney walls. Ideally, the old fireplace should be filled in so that there is a smooth streamlined entry into the flueway.

The length of any horizontal run of flue pipe should not exceed the flue outlet diamter on the stove ie 150mm.

It is essential that all connections between the stove and chimney/flue are sealed and made airtight.

Both the chimney and flue pipe must be accessible for cleaning and if ALL parts of the chimney cannot be reached through the stove, a soot door must be fitted in a suitable position to enable this to be done.

With large open fireplaces, use a condensation trap, with the flue pipe sealed into a horizontal register plate (Figures 2B, D). The clearances given in Figure 2D should be adhered to if the stove is to be recessed, or the benefit of the convected heat given off from the top of the stove will be lost.

The stove requires an adequate free air supply into the room of at least 103 sq. cm., and it should not be installed where an extractor fan is used.

PROXIMITY OF COMBUSTIBLE MATERIAL

If the stove is to be freestanding, any plaster behind must have suitable protection. Mount a sheet of 6mm non combustible material on the wall leaving a minimum 25mm air gap between both the wall and the back of the stove. Alternatively your stove may be installed without protection provided that a space of not less than 450mm is left between the wall and the back of the stove. If the wall is of wood, the distance from the wall to the back of the stove should be increased to 900mm. In all instances the stove should be positioned on an incombustible base-plate or hearth. Allow an apron of 300-450mm at the front of the stove and 225-300mm on either side to catch any loose ash. The hearth upon which the stove is to be placed should not be less than 127mm thick if the floor is made of combustible material, and care should be taken to level the stove.

MIDI STOVE ASSEMBLY — Figure 1

FITTING THE THROAT PLATE

The throat plate is a fabricated steel plate clearly marked with the words "Throat Plate".

Make sure before fitting that the front fire bars are removed.

MIDI 8 W and MIDI 20 W

The throat plate is located in the stove by two pins which fit into the lower brackets on the inside back of the stove and a bar at the top of the throat plate which locates on the higher brackets on the back of the stove.

The two lower brackets are below and each side of the flue while the upper brackets are wider apart and above the flue. See Figures 3,4.

With the front firebar removed hold the throat plate with the lettering facing outwards and downwards, and place the two narrow pins in the bottom brackets. The throat plate can then be swung up and back against the back of the stove. The throat plate is then pushed up slightly to allow the top bar on the throat plate to locate in the upper brackets by dropping down under its own weight. (See diagrams of throat plate in position).

MIDI 14 W

The throat plate in the Midi 14 W is a flat steel plate which is located in the stove by 2 pins which fit into brackets on the inside back of the stove. The front of the plate rests on the upper boiler tube.

By using the operating tool/poker, either type of plate can be swung down for flue inspection. Locate the lip under the top of the throat plate, and by pushing upwards (approximately 25mm) and pulling outwards, the throat plate can be lowered, still hinged on the bottom pins. (See Figure 5).

This will allow the top of the throat plate and the flueway to be cleaned through the appliance.

The throat plate is placed back in its operating position by reversing the lowering procedure.

THE THROAT PLATE SHOULD BE SWUNG DOWN AND THE TOP SIDE CLEARED AT LEAST MONTHLY.

Removal of the throat plate is the reverse procedure of the installation.

FITTING THE FRONT FIRE BARS

A three piece front fire bar is supplied with the stove. The bars slot into two guides situated either side of the main door opening. Each bar should be fitted with the flat face facing outwards and the locating detents on the right hand side. It should be noted that the fire bars will only fit the correct way round.

FITTING THE FLUE COLLAR AND INSPECTION PLATE

Fit the square gaskets, flue collar and inspection plate to the required outlets, using the brass nuts supplied. Do not overtighten the nuts. Only fit the flue damper if wood is to be burnt.

DO NOT FIT THE FLUE DAMPER WHEN BURNING SOLID FUELS.

PLEASE READ THESE INSTRUCTIONS CAREFULLY

It is important that your stove is correctly installed a Hunter & Son (Mells) Limited cannot accept responsibilit for any fault arising through incorrect installation.

Inspect your stove and in the event of damage notify Hunte & Son (Mells) Limited and the stockist from whom the stov was purchased immediately.

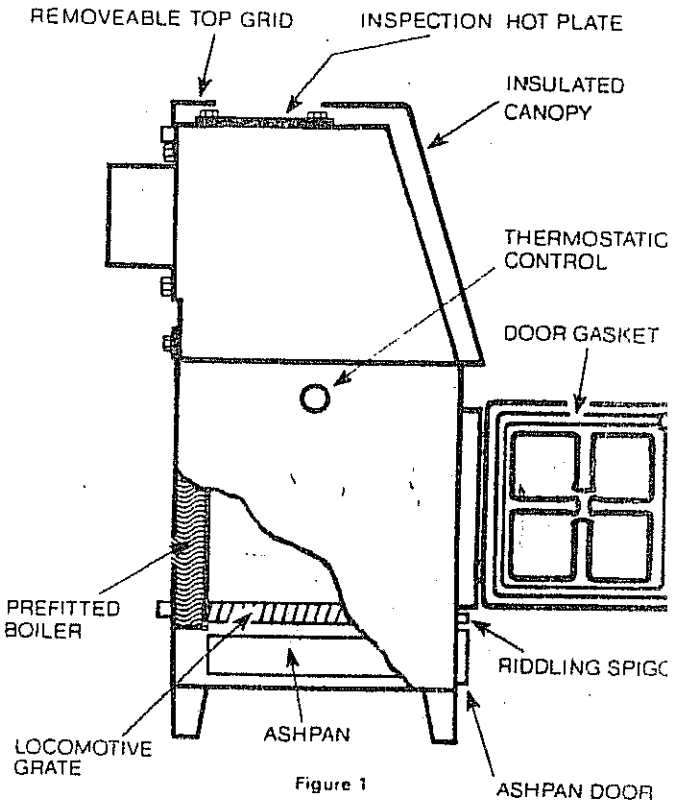


Figure 1

THE THERMOSTAT

The thermostat is factory set, but should be checked before commissioning the appliance. Remove the thermostat knob and canopy. Replace the thermostat knob on its spindle and set the thermostat to No. 8. Measure the mean gap from the inside face of the disc to the stove side. The gap should measure: Midi 8, 20mm: Midi 14, 30mm: Midi 20, 34mm. Variation of the gap measurement is achieved by adjustment of the locking nuts.

OVERRUN PREVENTION DEVICE

Check operation to see that the fire doors will not close whilst the ashpan door is open. (See Figure 8).

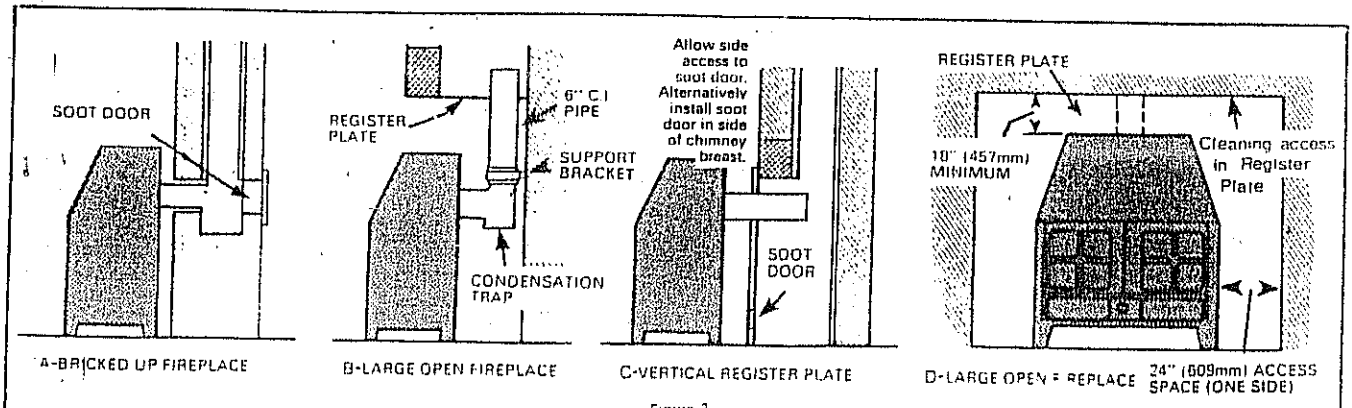


Figure 2

CONNECTING THE 4-TAPPING PREFITTED WRAPAROUND BOILER

When connecting the boiler, care must be taken that the boiler is not pulled out of level by the pipework.

All four tappings should be used for systems incorporating separate gravity and pumped heating loops. Each flow and return should be taken from diagonally opposite sides of the boiler. (See Figure 6)

If a common flow and return is used, these should also be taken from diagonally opposite sides of the boiler, and plugs inserted into the sockets not used. Use an injector tee on the return to improve circulation. (See Figure 7)

To prevent boiler corrosion due to condensation it is necessary to maintain the return water temperature above 45 deg. C. This can be achieved by the use of a mixer valve or a suitable electrical control. A build-up of scale and corrosion within the boiler should be prevented by the use of a suitable inhibitor.

GRAVITY CIRCULATION — HEAT LEAK

A double feed indirect cylinder complying with BS1566-Part 1 must be used for domestic hot water supply, and this must operate under gravity to act as a heat leak to ensure sufficient heat dissipation from the boiler when the heating pump is off. A bathroom radiator or towel rail having a heat emission of at least 3,000 BTUs/hr should be connected to the gravity circuit.

NOTE

It is the responsibility of the installer to comply with the Health & Safety At Work Act 1974, paying particular regard to the hazards of asbestos dust and the caustic nature of fire cement. Facilities for handling the unit should be adequate to prevent the glass in the doors being broken.

Care should be taken that all flues, hearths, combustion air supplies and the positioning of these should be in accordance with the current Building Regulations, Local Authority Bye-Laws, British Standards and Codes of Practice. Ensure that any electrical and water services are installed and connected according to current regulations and Codes of Practice. Particular note should be made of:-

BS5601 — Installation in Caravans and Mobile Homes
BS5449 Pt. 1 — Domestic Hot Water and Radiation Systems
BS1566 Pt. 1 — Doublefeed Indirect Hot Water Storage Systems
CP403 & BS6461.Pts. 1 & 2 1984 - Installation of Domestic Appliances burning Solid Fuel & Chimneys & Flues for Appliances Burning Solid Fuels.
CP 5449 — Central Heating for Domestic Purposes 15th Edition — IEE Regulations

Upon completion of installation, the appliances should be checked under fire for soundness of joints and seals, and also that all smoke and fumes are taken from the appliance, up the chimney and emitted safely. The installer should balance the heating system, set the pump head, etc. ready for operation.

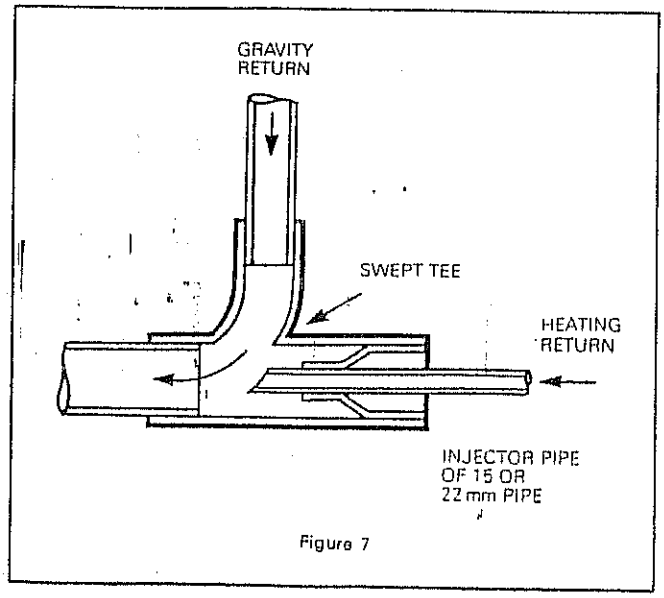


Figure 7

OPERATING INSTRUCTIONS
THE CONTROLS

MULTIFUEL GRATE

Your Hunter Midi is fitted with a locomotive type grate, and so that de-ashing can be carried out cleanly and easily, it is riddled from the outside of the stove with the doors closed. The grate is designed to burn both wood and solid fuels.

To burn wood, allow the ash to build up on the bars of the grate, so that the wood burns on its own ashes. Do not use the riddler when burning wood.

When burning solid fuels it is important that the riddler is used to remove the ash to ensure an airflow through the firebed and allow the fire to burn over the entire area of the grate. The ashpan should be emptied at least daily and ash should not be allowed to build up over a period of time as this will result in damage to the firebars.

OVERRUN PREVENTION DEVICE (Figure 8)

This device is designed to prevent the stove from being accidentally over-fired by leaving the ashpan door open with the fire doors closed.

Between the left hand fire door and the ashpan door, incorporated in the stove body, is a freely pivotting lever. If the ashpan door is opened and closed with the fire door open, the lever will be seen to move. If the ashpan door is left open, the left hand fire door will be obstructed by this lever and will not close completely. When the ashpan door is closed, the lever is pivotted back into the ashpan area, enabling the fire doors to be completely closed. It will also be noted that the ashpan door cannot be opened until the fire door is opened.

THERMOSTAT (Factory Set - See Installation Instructions for setting method)

Your Hunter Midi stove is thermostatically controlled. The thermostat automatically controls the rate of burning and the boiler running temperature by regulating the amount of primary air fed to the firebed.

The temperature of the water circulating around the central heating and hot water system can be set by turning the thermostat knob fully clockwise to number 8 for maximum output in winter conditions, or anti-clockwise to number 1 or number 2 for hot water and minimum heating only, or for overnight burning.

THE DAMPER ASSEMBLY

When burning wood, the flue damper assembly may be fitted. When the flue damper is set in the open position (handle in line with the flue collar) the chimney draws at full draught, increasing the speed of air flow through the stove and flue. Shutting the damper (handle at a right angle to the flue collar) restricts the flow, slowing the rate of burning. The flue damper should always be opened before the fire

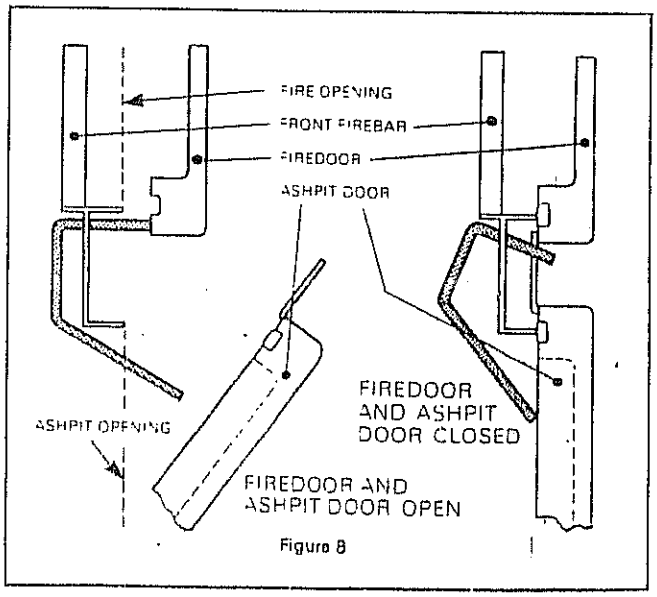


Figure 8

doors are opened.
THE FLUE DAMPER SHOULD NOT BE FITTED WHEN BURNING SOLID FUELS

Air control setting will differ for each installation, depending on the type of fuel used, chimney draught, etc. Experience will show how the best results can be obtained from the stove.

LIGHTING THE STOVE

Before lighting the stove for the first time, check with the installer that the chimney is sound, has been swept and is clear of any obstructions.

To light the fire, use rolled-up newspaper or firelighters placed on the grate with kindling and small pieces of fuel. Open the thermostat control, ignite the kindling and close the doors. Allow the fuel to reach a steady glow and build the fire up gradually. Once you have a good fire established across the grate bed, further fuel can be added as required. The thermostatic air controls can then be set to your particular requirements (see Thermostat Section above).

USE IN SOLID FUEL MODE

DE-ASHING

To de-ash, place end of riddling tool with square hole over protruding spigot on lower right-hand side of the stove. Move the tool handle up and down several times. Allow the ash dust to settle and the ash in the pan to cool before emptying.

Always de-ash before refuelling and do not let the ash build up on the grate. Coal produces ash, which, if allowed to build up, will stifle the air flow and eventually cause the fire to die. However, do not over-riddle or unburnt fuel will drop into the ashpan. Occasionally a piece of clinker or unburnt fuel may lodge between the bars. This can be removed by vigorous riddling or will burn out after a short period.

We cannot stress firmly enough how important it is to empty the ashpan regularly. Air passing through the firebed cools the grate bars. Distortion or burning out of grate bars is nearly always caused by ash being allowed to build up to the underside of the grate.

FRONT FIRE BARS

When burning more unreactive fuels such as Sunbrite Doubles (cokes) it will be beneficial to use all three front fire bars. When burning a reactive fuel such as household coal, it is recommended that only two bars be used.

RECOMMENDED SOLID FUELS

Manufactured Smokeless Fuels	Natural Smokeless Fuels
COALITE	ANTHRACITE STOVE NUTS
HOMEFIRE	WELSH DRY STEAM COAL (large nuts)
PHURNACITE	
REXCO	
ROYAL	
SUNBRITE DOUBLES	

Smaller sizes of the above fuels could be more suitable for use in Spring and Autumn.

PETROLEUM COKE FUELS SHOULD NOT BE BURNT ON THIS APPLIANCE.

Should any difficulties arise over fuel quality or suitability, consult your local fuel supplier.

USE IN WOODBURNING MODE

As previously mentioned, wood burns best on a bed of ash and it is therefore only necessary to remove surplus ash from the stove occasionally.

Burn only dry, well-seasoned wood, which should have been cut, split, and stacked for at least 12 months, with free air movement around the sides of the stack to enable it to dry out. Burning wet wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output.

FRONT FIRE BARS

It is recommended that only two front fire bars be fitted when burning wood.

ASH PAN REMOVAL

Using the square end of the riddling tool, open the fire dc first (because of the overrun prevention device) then turn handle in the centre of the ashpan door and lower it ge downwards. Use the operating tool to remove the ashpan remember to close the ashpan door immediately if the st is still burning. Do not leave the stove burning with the door open unattended. Allow ash to cool before placing plastic bins or liners.

Procedure for re-fuelling and de-ashing when suitable:

Riddle; wait; open fire doors; re-fuel; open ashpan dc remove ashpan; empty; replace ashpan; close ashpan d close fire-doors.

The stove can be banked up for long periods of burning, all day or all night by:

1. Closing down the thermostat. It usually takes a lil practice to find the correct setting for your particu installation.
2. Closing the flue damper (only when burning wood).
3. De-ashing prior to re-fuelling when the fuel level is l (only when burning solid fuels).

To revive the fire, open the thermostat fully until the fire burning brightly, de-ash if necessary, and refuel.

If the fire is blazing out of control, the thermostat should closed down completely and the fire allowed to die. Tl process can be speeded up if necessary by continual riddli so that burning and unburnt fuel is passed into the ashp and then removed.

Should the fire be sluggish, or not burnt adequately, che that there is an adequate air supply to the room in which tl appliance is situated, and then make sure that the thro plate, all flueways and the chimney are clear and free fro any obstruction.

SAFETY NOTES FOR YOUR GUIDANC

BE AWARE OF THE DANGERS OF FIRE—USE A FIR GUARD WHEN CHILDREN ARE PRESENT

WARNING — DO NOT OVERFIRE

It is possible with certain fuels to load the stove beyond i design capacity, causing it to overfire. Overfiring can also b caused by excessive draught in abnormal weathe conditions.

Overfiring the appliance could damage the stove.

Watch for signs of overfiring—if any part of the stove start to glow red, the fire is approaching an overfire situation, an the controls should be adjusted accordingly.

Never leave the stove unattended for long periods withou first adjusting the controls to a safe setting—careful ai supply control should be exercised at all times.

WARNING — DO NOT LIGHT THE STOVE IF THE WATER SYSTEM IS FROZEN

WARNING — DO NOT LIGHT THE STOVE BEFORE CONNECTION TO THE WATER SYSTEM

WARNING — CARBON MONOXIDE FUMES CAN KILL

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refuelling may occur. Persistent fume emission must not be tolerated.

If fume emission does persist, then the following immediate actions should be taken:

1. Open doors and windows to ventilate rooms.
2. Let the fire out, or eject and safely dispose of fuel from the appliance.
3. Check for flue and chimney blockage, and clean if required.
4. Do not attempt to relight the fire until the cause of fume emission has been identified. If necessary, seek professional advice.

GENERAL MAINTENANCE

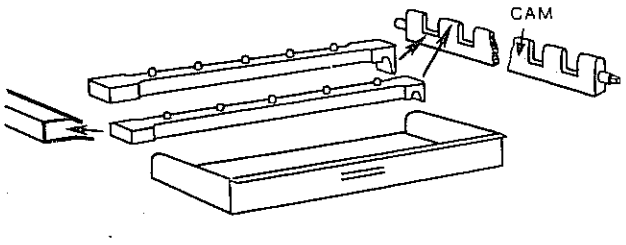
Hunter stoves are built to give long service, and by observing the following suggestions, your stove will remain in excellent condition.

STOVE BODY—The black stove body can be renovated with a suitable brand of paint, obtainable from your local stockist. Alternatively, a "stove black" polish, such as Zeebrite, will give an excellent lustre and positively enhance the look of the appliance. It will, however, require more frequent attention.

CANOPY—Polish the canopy, when cool, with a suitable spray-on polish and a soft cloth. This will maintain the colour and sheen of the paint.

GLASS—Clean the glass, again when cool, with a proprietary cleaner. Highly abrasive substances should be avoided as these can scratch the glass and make subsequent cleaning more difficult. Wet logs on heated glass, a badly aimed poker, or heavy slamming of the doors could crack the glass panels. The glass will not fracture from heat.

GRATE BARS—Should it be necessary to replace any of the grate bars, to remove the bars from the stove, first take out the ashpan(s) and then lift each bar up and off the cam located on the right hand side of the stove. Let each bar drop into the ashpan area, the left hand end remaining on the ledge. Continue this with each bar until all the right hand ends of the bars are off the cam. Then taking the bar at the back of the stove, bring the right hand end forward to the front and out, and continue in this order until all the bars are removed (Figure 9). To replace, reverse this procedure.



SEQUENCE OF GRATE REMOVAL

1. Remove Ashpan (s)
2. Lift all Fire Bars from Cam and lower
3. Starting from the back, slide Cam end of Fire Bars forward and out

Figure 9

DOORS—Should the doors on the appliance require adjustment to maintain their seal, each hinge is adjustable in three dimensions; by slackening the bolt behind the hinge with a 10mm spanner, the hinge assembly can be moved sideways and up and down, or it can be moved in and out by the addition or subtraction of shims or washers behind the hinge bracket.

THROAT PLATE—The throat plate should be lowered for cleaning *at least once a month* to prevent any build-up of soot or fly ash which could lead to blocked flueways and dangerous fume leakage. If the throat plate is lowered, the chimney can be swept through the appliance. See Throat Plate section under Installation Instructions. Check the throat plate each year, after years of withstanding the heat from the fire, it may eventually become necessary to replace this item which has been made removable.

BOILER—The combustion surfaces of the boiler should be regularly cleaned, and if the boiler is shut down for long periods it should be thoroughly cleaned and the boiler surface protected against corrosion by spraying the surface with a hygroscopic lubricant such as WD40. Set the thermostat to No. 8, or leave the doors slightly ajar to reduce condensation.

CHIMNEY—Check your chimney each year before starting to use your stove for the winter. Birds may have built nests in the chimney or the masonry may have cracked. Both the chimney and flue pipe must be swept at least twice a year. We recommend the use of a wire centre sweeps brush with guide wheel.

TAR—If you are burning wet or unseasoned wood, you may find that the glass becomes blackened and the boiler surface coated with tar. This can sometimes happen quite quickly especially when the stove is used with the thermostat closed. Dry wood that will create sufficient heat will burn off the tar. Burning the fire up fiercely for about half an hour each day will help remove tar deposits and by warming up the chimney, reduce the possibility of deposits forming.

SPARE PARTS

The following is a list of useful spare parts, complete with their part numbers, should you need to order any replacements.

	PART NO.		
DESCRIPTION	**Midi 8**	**Midi 14**	**Midi 20**
THROAT PLATE	701354	701016	701018
OPERATING TOOL	700230	700231	700232
MIDI GRATE: Each bar MkII	700162	700165	700168
MIDI GRATE: Cam section MkII	700163	700166	700169
DOOR AND ASHPAN DOOR HANDLE	700191	700191	700191
FRONT FIRE BAR	700090	700091	700092
BRASS RIDDLING TOOL	700102	700102	700102
GASKET FOR FLUE COLLAR/INSPECTION PLATE	700192	700192	700192
DOOR CATCH ASSEMBLY	700049	700049	700049
THERMOSTAT	700182	700182	700182
GLASS	701174	701175	701176
FIREPROOF SEALING ROPE FOR DOORS (per metre)	700194	700194	700194
FIREPROOF SEALING ROPE FOR GLASS (per metre)	700193	700193	700193
GASKET GLUE (per 125ml tin)	700158	700158	700158
BLACK STOVE PAINT (125ml tin with brush)	700160	700160	700160

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