INSTALLATION AND OPERATING INSTRUCTIONS

FREE STANDING STOVES

EXE and DEVON

This stove should be installed by a HETAS approved installer
If it is installed by any other person the Building Control Service must be informed

170603

Welcome

To

Yeoman

We are pleased that you have chosen one of our freestanding wood/multifuel stoves which have been designed for modern living. Owning such a stove shows an appreciation for exceptional quality.

Please read your manual thoroughly, it's purpose is to familiarise you with your stove, and gives guidelines for it's installation, operation and maintenance. If after reading this manual you need further information, please do not hesitate to contact your supplier.

IMPORTANT NOTICE

If your stove is installed correctly, it will give you many years of excellent service for which it was designed.. Please read these instructions carefully and ask a specialist to install your stove for you .

WARNING

All types of heating appliance can be potentially dangerous. Correct installation and operating procedures must be observed when fitting this stove. Some parts of your stove are protected on their surface with heat proof paint. When the stove is first used it is normal for it to emit some light smoke, with an unpleasant smell. Though unpleasant, this is non toxic and is produced only whilst the stove paint fully cures.

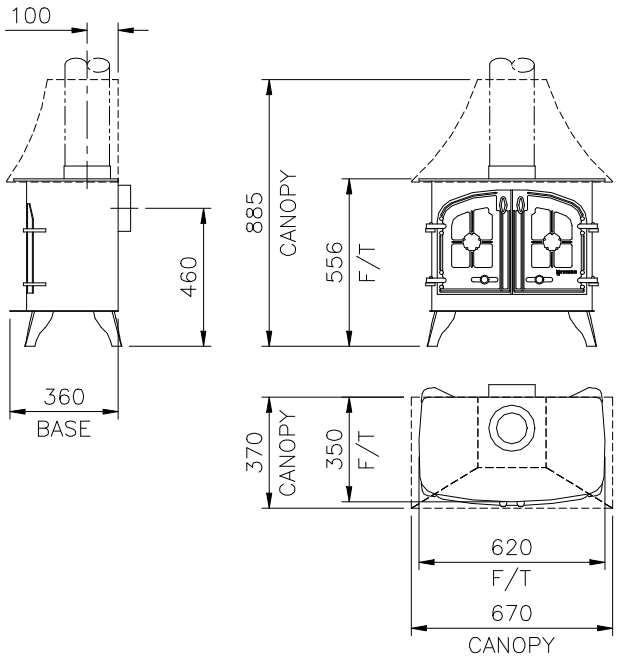
We recommend that you ventilate the room adequately until this disappears.

Component List
For Exe & Devon Stoves

1 No. Body complete with door/s
1 No. Baffle plate.
1 No. Log retaining bar.
1 No. Instruction leaflet.
1 No. Cardboard box containing:-
1 x 150mm flue spigot.
1 x 150mm flue blanking plate
2 x Baffle extension tubes,
2 x M8 Roofing Bolts,
2 x M8 Flat washers,
2 x M8 Square nuts,
1 x Door tool.
2 x Allen headed bolts.
2 x Pozi headed bolts
1 x Allen Key

Also required for Exe and Devon stoves either a flat topor low canopy and high canopy for Devon only..

Dimensions of stove



Devon

CONTENTS

Installation

The way in which the stove is installed will influence it's safe, effective and efficient running.

It is of the utmost importance to ensure that the installation is up to the correct standard.

Installation of your Yeoman Stove must comply with current building regulations. Yeoman Stoves therefore recommend that a **hetas** professional fitter be employed for this task.The installer will provide you with information about the safety limits of the installation and should fix a notice plate in a place where it can be readily seen, eg: next to the electricity meter.

Positioning the stove for the best results

Your Yeoman Stove emits heat both by radiation and convection; heating walls, ceilings, furniture, etc. by warming air, which carries heat to the furthest parts of the room.

The Yeoman Stove produces a soft even heat that allows you to enjoy maximum comfort in your home.

All stoves should be installed in accordance with the relevant building and HETAS regulations. A note of some of the points, but in no way a comprehensive list is given below :-

Your Yeoman Stove must be placed on a noncombustible hearth, extending 300mm in front of the stove, and 150mm to either side of the stove.

When the stove is placed near a wall or partition, it must have a clearance of at least 300mm, unless the wall is made of a noncombustible material, which is at least 75mm thick, in which case the minimum clearance should be 50mm.

Chimneys and Flues

The successful operation and efficiency of your Yeoman Stove is dependent upon the following criteria: -

a.) The operation of the chimney.
b.) How you use your Yeoman Stove.
c.) The quality of the fuel used.

The following information is designed to help you to decide whether you can use your existing chimney, whether a new one should be built or a chimney liner fitted.

How the Chimney Works

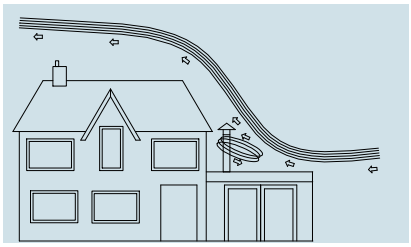
A basic understanding of how a chimney works will help you to obtain the greatest benefit that you can from your chimney. The chimney has two main functions, which are, to safely remove the smoke, gases and fumes from the house, and to provide a sufficient amount of draught in the stove to ensure that the fire is kept burning brightly.

What is Draught?

The basic principle that hot air will rise gives rise to draught in the chimney. When your Yeoman Stove is lit, hot air rises up through the chimney. This air is then exhausted at the chimney pot where it is diluted within the surrounding atmosphere. When the chimney temperature is maintained the draught will also be maintained. If the stove and chimney are not hot then the draught will not function to its best potential. The position, size and height of the chimney are all factors that effect the performance of the draught.

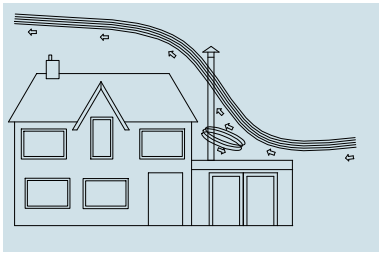
The Following Factors Must be Considered

- Chimneys situated within the house are insulated from the cold – thus the extra warmth gives a greater draught.
- The minimum size of a chimney is 150mm in order to maintain a good draught.
- The height of the chimney effects the draught.The minimum height is 4 metres. The higher the chimney the greater the draught.
- The chimney should be at least one meter higher than the highest point of the roof.



incorrect

- Avoid the chimney opening out onto areas near buildings, where the air may be turbulent and inconsistent.
- If a chimney is opening out into an area near a building or obstruction, then its height should exceed the peak of the obstruction by at least 1 metre.



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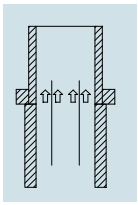
- Internal walls of the chimney should be smooth and free from restrictive obstacles.
- Where pots meet with working chimneys, restrictions or reductions are to be avoided.

Correct



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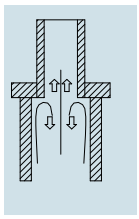
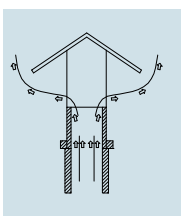


- If it is necessary to increase the draught then this can be achieved by extending the chimney.
- Any cowl that is fitted to the chimney must not impede the exhaust of the gases.

Correct



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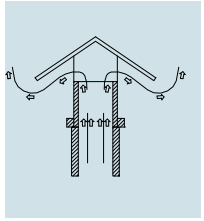


There are other factors which effect the draught.

- Residences that are highly insulated on the inside, without air vents, cause insufficient amounts of draught as air cannot enter the stove to form the draught. Improving room ventilation can rectify this problem.
- Trees and/or high buildings close to the property can cause turbulence.
- Wind speed. Generally, continuous strong winds increase the draught, but gusty winds decrease the draught.
- Outside temperature. The colder the external temperature the greater the draught.
- Baromic pressure. On rainy, stormy or humid days the draught is generally reduced.
- Strength of the fire. The hotter the fire the greater the draught.
- Cracks in the chimney. A badly sealed stove door and air holes in the flue joints are all factors which can reduce the quality of the draught achieved.

Tar deposits and their removal

When wood is burnt slowly tar and other organic gases are produced, which, when combined with atmospheric humidity, form tar. Any accumulation of tar should be cleared immediately. To help prevent the buildup of tar there are powders etc., available from your Yeoman dealer**.**

Since tar buildup depends upon so many contributory factors, it is difficult to accurately predict the correct interval at which the chimney should be cleared. Yeoman stoves therefore recommends regular visual inspection as the most prudent way of monitoring chimney condition. For this reason it is recommended that the installation is easily accessible.

Further information and advice may be obtainable from a local chimney sweep.

Chimney options

If it is necessary to construct a chimney for your Yeoman stove there are three main choices.

- Brick chimney.
- Pumice chimney
- Metal chimney.

Studies show that there is no great difference between brick, pumice or metal chimneys

concerning the draught that is generated. However, you will get less of a tar build up using a pumice liner. Wherever possible you should position your chimney inside the house to obtain the best draught and reduce the accumulation of tar etc.

Chimney connections

A chimney should ideally be vertical, smooth and free of cracks and all foreign bodies. The chimney must be swept before lining or any connections. It is also essential that all flue pipes are well fitted and that their unions completely airtight.

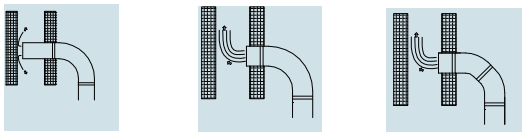
Flues should be vertical wherever possible. Horizontal flue runs should be avoided except in the case of a back outlet appliance, when the length of horizontal section should not exceed 150mm.

Where a bend is necessary in a flue it should not make an angle of more than 30 degrees with the vertical.

Additionally any flue pipe passing through cavity walls should be sleeved or of twin wall construction.

When any flue pipes pass through a wall or closure plate there must be a reasonable area left behind the pipe in order to allow the gases to clear.

Flue pipes should be sealed through an air tight 'register' or 'closure' plate and should be fitted above the point where the chimney narrows.



Wrong

In order to maintain the temperature in a flue any external flueing must be of twin wall constructions

Flue voids should be avoided, as these will also reduce the effectiveness of the draught.

Access must be provided for the inspection of the chimney and the clearing of any debris or accumulated soot and tar.

Flue pipe which is less in cross sectional area than that of the flue outlet of the stove, must not be used.

When the sections of the flue pipe fit into one another, the end facing upwards must be the end with the largest internal dimension. With the pipe orientated like this the downward facing end of the next pipe should fit inside it. In this way ledges inside the flue pipe do not collect ash or other deposits. Nor do these joints allow condensation to settle and weep through the connection.

Chimney Draughts - Ventilation

For your Yeoman Stove to operate correctly it is essential that the draught of the chimney, which determines the provision of air to the stove, is continuous. This is to ensure the evacuation of fumes during combustion. Therefore it is necessary to ensure that a constant supply of air is available via a permanent air vent. This permanent vent should have a minimum free area as shown in the chart below, depending upon the Yeoman Stove, which you have chosen to purchase.

Stove	Permanent Vent
EXE	None Required
DEVON	2200mm^2

Checking the Draught

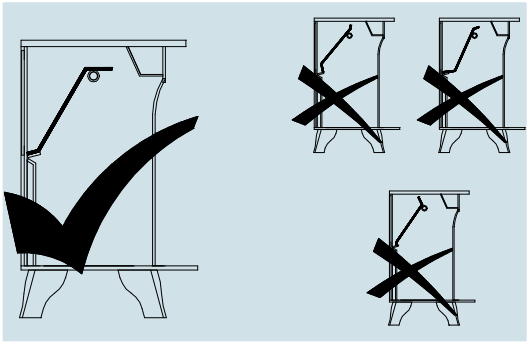
Once installed, it is important that the flue draught is measured, using a 'flue draught gauge . This gauge should be used to ensure that at the minimum firing rate, the draught should be approximately 0.5mm. This figure will vary linearly as the firing rate is increased until the maximum firing rate is achieved, at which point the gauge should show no more than 1.5mm. If the draught at the maximum firing rate exceeds 1.5mm then additional stabilisers must be fitted.

Assembling Your Yeoman Stove

All stoves are dispatched to the dealers with some loose fittings supplied in the base of the stove; - Flue Connector/Spigot, Flue Blanking Plate, Baffle Extension Tubes, Baffle and Multipurpose Tool along with any fixings that are required for their assembly.

The flue connector/spigot (inside the cardboard box) can be used in either the top or rear position. Place the spigot in the top or rear flue position, screw in the black countersunk screws and tighten with the allen key supplied . The blanking plate is fitted in the same way. There are two holes in the sides of the flue spigot which are blanked off using the two 'bright' nuts and bolts supplied (unless a butterfly and spindle is fitted). Fire cement is best applied prior to tightening down. All flue pipe must be fitted with the spigot end pointing down.

The baffle plate must be fitted in the top of the stove. Once correctly fitted over the support pins at either side, the baffle extension tubes can be fitted over the support pins to increase stability of the baffle. The illustrations below indicate the correct positioning of the baffle.



Adjustable Door Cam

The door retaining device on your Yeoman Stove is a cam concentrically mounted on a threaded spindle. This means that a **half turn of the knob** results in initially latching and then pulling the door into the stove body, compressing the rope and achieving a seal. The cam is adjustable to suit the 'bedding in' of your individual stove. To increase the pull of the cam, first open the door turn the cam anti-clockwise through one complete revolution, now close the door and operate as normal. In order to reduce the tension of the cam and decrease the effort when closing the stove the procedure is the same, however the rotation should be in a clockwise direction.**We strongly recommend that the cam is greased with *Yeomans* high temperature cam grease at the end of each season.**

Final Checks

There are two other items that should be checked before first igniting the stove. These are firstly that the sides and rear of the stove are fitted with fire bricks as supplied, and secondly that the Ash Retainer and Log Bar are fitted. Both the Ash Retainer and the Log Bar are fitted behind the door of the stove in the two fabricated channels, the Log Bar being positioned on top of the Ash Retainer so that the 'spikes' are pointing upwards.

Initial Running in of the Stove

Yeoman Stoves recommends that when your Stove is first installed a couple of smaller fires are lit, the stove will take these few lightings to fully cure the paint. So to gradually increase the temperature of the burn is of advantage to the longevity of the surface coating.

As the paint cures it gives of an unpleasant acrid odour, this is not harmful, but Yeoman Stoves do recommend closing your internal doors and leaving windows open to keep the room well ventilated. Children and pets are best kept away during this process

DO NOT TOUCH OR WIPE THE STOVE DURING THIS PROCESS

Lighting your Yeoman Stove

Load the fire with the starting fuel, i.e. paper, dry sticks, or fire lighters and the fuel to be burnt. Ensure that all air vents are left open, light the fire and close the doors so that they are just slightly ajar. Leaving the doors in this manner will prevent the ceramic door sealing rope from sticking to the paint during curing.

Wood burns most effectively on a bed of ash on the base of the stove. If possible before commencing initial burn place a bed of ash approximately 25mm deep on the base of the stove.

Controlling the Burning of Your Yeoman Stove

Your Yeoman Stove benefits from fully controllable Primary air, Secondary air, and Tertiary air.

Primary air is the principal source of air when lighting the stove and burning the stove particularly hard.

Secondary air is the source of air, which is forced across the glass in order to reduce any products settling on the glass diminishing viewing pleasure. This air source is also referred to as the 'Air wash'.

Tertiary air is the third source of air combustion. In reality, as the tertiary air is used for secondary combustion of unburnt gases this can only be seen to be effective when your Yeoman Stove is up to high operating temperatures. The route which the air intake takes leads to pre heating of the air before entering the combustion chamber at the optimum points for combustion. With greater combustion, comes improved heat output and greater efficiency, as well as a cleaner burn.

Location and Operation of Air Controls

Primary air – controls are located on the doors of your stove. Either a standard operation rotary control (clockwise to close – anti-clockwise to open) on the single door appliance. Or alternatively two sliding plates (towards the centre of the stove to close – towards the outside of the stove to open) on the twin door versions.

Secondary air ‘ Air wash' – control is positioned towards the top right hand side of the stove in the shape of a formed steel lever. This lever operates from left to right, fully right the air wash effect is completely removed, and fully to the left operating to its greatest effect.

Tertiary air – This control is positioned underneath the stove in the form of a turned down steel plate. Pushing the plate to the rear of the stove eliminates the flow of tertiary air, whereas pulling the plate towards the front of the stove gradually increases the possible flow of air.

Burning Wood

When burning wood Yeoman Stoves recommend that it is well seasoned. In order to achieve this it should be cut into logs and stored in dry conditions so that air can circulate through the pile for one to two years before burning.

As a guide to the dryness of wood, we would suggest that when looking at the end of a log, radial cracks deep enough to be described as splits, should be evident. If the wood is wet and unseasoned, then it will have considerable water content. Each litre of water the wood contains will reduce the heat output of the stove by one third of a kilowatt and will be boiled off in the form of steam. Burning wet wood not only reduces the heat output but also lowers the flue temperature, and can lead to the formation of tar deposits in the flue.

The following table shows the water content by weight, of timber in its cut state (green wood).

Green Wood	Moisture Content
Beach, European	80%
Oak, European	85%
Ash, European	46%
Yew	100%
Pine Pitch	60%
Teak	60%
Elm, Common English	135%
Mahogany, African	65%
Fir, Douglas	58%
Whitewood, Baltic	90%
Cedar, Western Red	50%

The Effect of Seasoning Wood

When wood is seasoned as suggested above, the moisture content will gradually reduce over time. The table below indicates the energy released (in both kilocalories per kilogram, and British Thermal Units) and the water content of various stages of the seasoning process.

Seasoning	kC/kg	Btu's	Moisture
Shortly after felling	1700	3060	40-60%
Seasoned one winter	2300	4140	30-50%
Seasoned one summer	2900	5220	18-25%
Seasoned several years	4000	7200	10-15%

Burning your Yeoman Stove

Build the fire using kindling material as above. Open all air controls fully, light the fire at the front. When the flue is cold it may be best to leave the doors slightly ajar, for a few minutes **do not leave the stove burning unattended with the doors open.**

As the fire begins to take hold add more fuel, the stove will take approximately 10-15 minutes to get up to a reasonable temperature. This time will be taken to warm the flue and make the draught perform correctly in the chimney.

Once the stove is burning fully at higher temperatures and there is a good amount of heat in the bed of the fire, the primary air controls on the door of the stove can be closed (experience will tell you how much to close these controls, and at what stage). When the stove is fully up to working temperature and the primary air is minimised or eliminated then your Yeoman Stove is starting to work efficiently.

If the stove is being used to burn solely wood then it will probably be sufficient to use the top secondary air (air wash) only. This method of burning will encourage the process to be cleaner and more efficient. When burning wood with a mix of coal it may be necessary to leave the primary air open slightly depending on the fuel and mix ratio. Again this will become more apparent as experience is obtained. The reason for this additional air is that most solid fuels require some 'up-draught' to burn correctly. Though some lively fuels will be found to require very little.

When the fire is being controlled by secondary air, secondary combustion will be seen to take place. This will be evident by the fire box being filled with flames and the gases in the fire box appearing to burn. At this point the air wash is performing as it should, you will note that the stove burns with clearer glass and black deposits from previous slow burns can be seen to clear. As well as clearing the glass the air wash will also have the effect on inhibiting dust and ash from being deposited on the glass, thus improving the overall view of the fire within the stove.

If the stove is producing too much heat for your convenience, the most practical way in which to regulate this is by using less fuel. i.e. rather than filling the stove and burning it inefficiently with the secondary air partially closed, it will be more efficient to add less fuel and burn with the secondary air active. If the stove is burned whilst starved of air, high combustion temperatures will not be achieved, and clean burning will not take place. This will be evident by a more orange (sooty) flame and carbon deposits on the glass (blackening).
High combustion temperatures are the key to clean and efficient burning of your Yeoman Stove, so it is far more beneficial to add many small loads of fuel to the fire rather than smothering the fire by adding one large load. Adding fuel in one large batch tends to have the effect of removing heat from the core of the fire. Adding cold wet wood is also a formula for low combustion efficiency, smoke emission, tar production, and an immediate blackening of the window.

A good tip when refueling the stove is to pull forward the existing burning fuel and add new cold fuel to the rear.

Fuel Types

To ensure satisfactory performance of your Yeoman stove it important to use fuels that are of a suitable size and type, we therefore recommend that you use only fuels that are Hetas approved for the use in closed appliances. When burning wood it is quite acceptable to add a few lumps of solid fuel providing that the vast majority of the fuel is wood.
Flues should be inspected frequently, and fuels impregnated with oil not used. Consult your coal merchant for more comprehensive information.

Removing the Ash from Your Stove

Whilst burning wood the ash in the bed of the stove will be re-burnt, compressing down as more fuel is added. This bed of ash will aid the storage of heat in the core of the fire. Ash need only be removed from the stove when it becomes a nuisance, even at this stage it is more advisable to leave a bed of ash in the base of the stove and only remove a proportion of what is there.

The ash pit should not be completely cleared of ash, as this will detract from the efficient running of the stove.

Overnight Burning

If you fill your Yeoman Stove completely with fuel last thing at night, and close down all air controls, it may be possible to keep the stove alight through the night. This will depend on many factors, the most important being the flue draught.

Care and Maintenance

When the stove is to be left for long periods without burning (i.e. the summer months), remove all of the ash and spent fuel. Leave the doors slightly ajar to prevent the build up of rust and to allow the chimney to 'Breath'. This is also a good time to give your Yeoman Stove a thorough clean and inspection of the flue.

The paint finish is of a matt texture and requires to be brushed down with a soft brush or non-fluff duster.
Water, damp cloths or any cleaning agents should not be used on the painted surfaces.

To revitalise your stove a further coat of paint may be applied using the Yeoman Stove Paint. This paint is the same as the original finish and can be supplied through your local authorised dealer in the form of an aerosol.

Yeoman Stove Fire Resistant Gloves are available in the same manner to assist in the operation of your stove controls.

The rope seals around and between the doors may periodically need renewing. Kits are available from your stockist, containing the correct length of rope, cut and sealed, as well as the correct heat resistant adhesive for the application. By changing the rope around the glass will help to keep the retaining clips and screws easy to remove if you are unfortunate enough to break a glass panel. When changing the rope seals it is important to make sure that the casting is clean before applying fresh adhesive – this is best done by the use of a wire brush and / or abrasive paper. Yeoman Stoves glass cleaner is also available for the removal of stubborn marks and ash from the glass of your stove.
If you have the misfortune to break a piece of glass, replacements are available through your stockist. The correct ceramic glass should be used, as standard domestic glass will not withstand the high temperatures and could prove to be dangerous. The glass panels are easy to fit, attached only by four clips each held in place by an individual screw.

Optional Extras

Brass Knobs – Solid brass knobs are available as a direct replacement for your standard cast door knobs.

Damper Blade and Spindle (Butterfly and Spindle) – are available for fitting in the flue spigot.-

If it is found that excessive flue draught exists then a damper blade and spindle may be purchased. This item it easily fitted into the pre-drilled holes in the flue spigot. This can quite readily be carried out after full stove installation has taken place. As an alternative or in addition it is possible that a draught stabiliser be fitted into the chimney. Please consult your supplier or installer if you have any further questions about this procedure.

Boilers – S/Steel boilers are available for each of the Exe & Devon Stoves.

DESCRIPTION.	Part No.	Output to Water.
EXE	YB31963	8,500
DEVON	YB30963	12,000

To fit any of the above boilers, the two blanking bolts and four plates need to be removed from the

back of the stove. The baffle and baffle extension tubes also need to be removed . The boiler will then fit into the stove in place of the baffle, bolting in place using the nuts provided with the boiler.

A boiler cleaning plate is also supplied which fits into the hole formed within the boiler. This plate can be removed to aid the cleaning of the stove and flueing system.

With a boiler fitted the flow temperature should never be allowed to drop below 55ºC. Using the appliance with a temperature below this point will create condensation within the firebox, and the chimney, resulting in premature deterioration of parts.

This action will shorten the working life of the stoveconsiderably and in validate any considerations under warranty relating to this particular problem.

To overcome this potential hazard we strongly recommend the use of heat sensor controls for the hot water system. This could take the form of a thermostat coupling from the flow and/or return to the pump, which would have the effect of overriding the manual pump switch and maintaining an acceptable temperature in the boiler and also provide a gross heat peak should over-firing occur, even when the pump is switched off.

Multi Fuel/ Riddling Cassette
(can be supplied separately)

Installation

Using the 5mm allen key supplied, remove the M8 blanking bolt from front right hand side of body. A spanner is needed to stop the nut from spinning.

Remove the log retaining bar

Remove the ash retainer and keep for future woodburning use.

Remove front plate (below the door/s) by first undoing the two retaining nuts.

Remove the locking nut from the riddling rod. Insert the rod through the hole (from the front of the stove) from where you removed the blanking bolt. Replace locking nut.

Fit the cassette into the stove body with the curved part facing forward, making sure it is located into the grooves at the front of the stove.

Screw the rod into the fixed nut in the cassette, making sure it is tight. Tighten the locking nut using a 10mm spanner.

Place the handed side plates in position on the platform so they rest against the firebricks.

Fit the two grate spinners into position making sure they are located onto the riddling pins. Test for smooth operation.

Replace the log and deepening bars (keep ash retainer for future use.) Note: if you do not want a large fuel bed , then the deepening bar may be left out.

Place ashpan into postion making sure the front plate attached finishes flush with the body.

Spare Parts and Part Numbers

A selection of the spare parts that are available and their associated part numbers is given on the exploded diagram of your Yeoman Stove. The various configurations of stove are shown.

You should only use genuine spare parts from your *yeoman* dealer

GUARANTEE

1. All Yeoman stoves are guaranteed for two years against faulty components from the date of purchase.

2. The guarantee is given subject to the following provisions;

a)That the installation, and any additional work to either flue or combustion chamber, is carried out by a suitably qualified person.

b) That the fireplace and flue installation conforms to all relevant building regulations and British standards where appropriate.

c) That our instructions for installation, servicing and cleaning are followed. This guarantee does not cover mishandling.

d) That any part or parts replaced under guarantee are returned to us postage paid for inspection, via your Yeoman dealer.

e) That our liability is limited to the free replacement part or parts affected. **NO** claims for any other work will be considered unless agreed by Yeoman Stoves management.

f) This guarantee does not cover normal wear and tear.

g) This guarantee does not cover glass or any seal replacement, firebricks, baffles or paint finish.

3. Yeoman stoves are guaranteed via the **stockist** from whom they were purchased, and **not** directly by Yeoman. In the event of any guarantee claims, you should therefore contact **the stockist** from where you purchased the stove.

This does not effect your statutory rights.

For your records and to assist us in any guarantee claim please make a note of the following;

Stockist from whom purchased:

Name.....

Address.....

.....

.....

.....

Tel .....

Installed by:

Name.....

Address.....

.....

.....

Tel.....

Date Installed.....

Model Type.....

Serial No. .....

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