MULTIFUEL STOVE

INSTALLATION AND OPERATION MANUAL

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Thank you

May we take this opportunity to thank you for choosing a Cast iron Multi-fuel stove. Please take time to read this manual and follow the guidelines on how to install and operate your new stove, as we feel sure it will enable you to use it to its best advantage for many years.

The term “Multi-fuel” means that the stove is capable of burning a variety of solid fuel e.g. Wood, Coal, Anthracite, Phurnicite and various preformed Briquettes or a mixture of these. The multifuel grate inside the stove allows a flow of air through the base of the fire. This is necessary when burning coal. See the section on “Starting and maintaining the fire” for more details.

Installation

The detailed provisions in this document are intended to provide guidance for the more common situations .Alternative ways may be appropriate in other circumstances. Building regulations must be followed.

1. We recommend that you seek the services of an installer who is conversant with stove installations and building regulations.
2. It is most important that there is no obstruction in the flue or chimney. Please ensure that the flue is checked and swept before any installation. A flue draught of minimum 1.5mm to a maximum 2.5mm water gauge is required for satisfactory appliance performance. The flue draught should be checked under fire at high output and if it exceeds the recommend maximum, a draught stabilizer must be fitted so that the rate of burning can be controlled, and to prevent over firing. If you have any doubts about the suitability of your chimney, consult your local specialist.
3. Ventilation is essential for the combustion process. It may be necessary to install a wall vent to provide combustion air and prevent the depletion of oxygen in the room. This need is more prevalent in modern house where drafts have been almost eliminated by double glazing etc .Our gas models have an oxygen depletion sensor, this switches off the gas supply to the stove if the oxygen content in the room falls below the desired level. This is not possible with a multi-fuel stove.
4. Your stove must be installed on a non-combustible hearth and with a gap of at least 600mm from any combustible material. In front of the stove, to carpets or wooden floors there must be 300mm of hearth. It is possible that on opening the door of the stove for a log or coal to fall out .A fender must be fitted if the heart is flush with the carpet.
5. A properly built masonry or factory installed chimney ,preferably with a height of 15 feet or more ,should ensure a consistent draught (draw) under a variety of weather conditions .This stove requires a chimney (not the flue pipe) with a minimum diameter of 150 mm (6”). If the chimney and cavity are larger, this may result is less than optimum performance to and extent where it may require a liner to improve the draught (draw) and performance of the stove .certain cowls improve the draught (draw) of a chimney. If the draught (draw) on the chimney is excessive, then a flue damper will help to slow this down. An excessive draught (draw) may cause over firing and thus the internal components of the stove to wear out quicker.
6. The flue spigot (pre fibre roped) provided with the stove can be fitted to the rear or the top of the stove and must be tightly fitted to the opening. This is so that air is not drawn in at this point which will affect the stoves performance.
7. To get the best transfer of heat from the stove into the room there are two factors to consider. Firstly, the flue pipe from the stove must pass through a “register plate”. A register plate is the term used for a flat plate which is installed up inside the chimney (usually out of sight) to prevent heat from the stove being drawn up the chimney to waste. The register plate must be made of a non-combustible material such as steel, asbestolux, or masterboard. It is advisable to seal this register plate to the walls of the chimney and also around the flue pipe. Provision of a trap door in the closure plate or a soot door in the flue for access to clean the chimney from time to time is recommended.
8. Secondly, the more forward the stove can be sited on the heart, the more heat will be radiated into the room. To achieve this, the back flue outlet is favoured but remember the 600 mm gap from

combustible materials.

Operation

Curing the stove

Your stove is made of a number of cast iron components and we recommended that the first burn should be a small fire for about 30 minutes. This enables the stresses and strains at the joints to be taken up and settle gradually. The second burn can be a larger fire for 1 hour .During the curing process, the stove will give off a pungent small and some fumes. This is the paint curing and is quite normal. Provide ventilation whilst this is happening since the fumes can be quite strong and may set off smoke alarms in the room. The paint will become slightly lighter in colour when the stove is cured, particularly in the hottest spots. Fire Grate polish can be used to keep the stove in good condition, or stove spray paint can be used to re-touch the stove. Obtain the correct stove spray from a stove stockist.

Recommended Fuels

The recommended fuels are wood (dry seasoned for a minimum of one year), House Coal, Anthracite, Smokeless fuels such as “home fire” and various types of preformed briquettes. Ask your local fuel merchant for more details on these fuels. Under no circumstances burn “petrol coke”. This is a product for boilers and furnaces only. It will burn out the internal grate and baffle plate in a very short period of time and may damage the stove beyond repair. Do not use gasoline, lighter fluid, kerosene or other flammable liquids to start or rekindle the fire for obvious safety reasons.

Starting and maintaining the fire

Build a fire directly on the grate with crumpled newspaper, kindling wood and “firelighters”. Ensure all air controls (primary and secondary) are fully open to begin with. When the kindling is burning well, add larger pieces of wood or coal to gradually increase the size of the fire. There are **IMPORTANT** differences in the method of operation for burning coal or wood in your stove.

BURNING COAL

Coal needs a flow of air for combustion through the bottom of the grate. Wood does not require this and will readily burn on a bed of ash with a flow of air over the top.

BURNING WOOD

If you have only burning wood, you may allow a bed of ash to build up on top of the grate to a level of about 20 mm forming a flat surface on which the wood may burn. You will then use the “air-wash” vent slide to provide the combustible air and control the burn rate of the fire.

If you are burning coal or a mixture of coal and wood DO NOT allow a bed of ash to build up above the level of the sides of the ash can . Coals need combustible air to flow through it from underneath. At the same time, when burning coal, this air is needed to keep the grate from overheating. Failure to

allow a sufficient flow of air through the grate will result in the grate burning out in a very short period of time. You will get some spillage of ash to the back and sides of the ashcan itself and you must ensure that this is also cleaned our regularly cleaned out from behind the internal baffle plate. If you do not do this, you will buckle the baffle plate or in the extreme, burn it out.

Trouble-shooting

1. **Smoke comes out of the stove when the loading door is opened.**
   - The chimney cavity into which the 125mm flue pipe has been installed may be less than the minimum 150mm requirement.
   - Deposits (soot) may have built up in the chimney and be restricting the flow of waste products. This flow rate is known as the "draw".

2. **The stove does not produce the expected heat into the room.**
   - A register plate may not have been installed.
   - Has the register plate been sealed to prevent heat being drawn out the chimney to waste.
   - Green or wet wood is being burnt.
   - The chimney has excessive draw (this is unusual).Seek installer advice with regard to installing a Flue Draught Stabilizer.
   - The stove has been recessed into the existing fireplace and a lot of heat is absorbed in the surrounding fireplace walls rather than being radiated into the room. Pull the stove forward.
   - For the maximum efficiency of heat transference into the room the stove should be sited on the heart off the fireplace rather than recessed

3. **The stove burns too fast.**
   - Use whole logs rather than split ones.
   - The wood being used may be generally too small.
   - The "air-tight" seal between the fibre rope on the doors and the casting may have been lost, adjust door handle lock nuts to reinstate this seal.
   - The chimney has excessive draw (seek installers advice on this point).
   - The fibre rope seal between the door and the glass may be leaking.
   - The glass is not sealed; gently tighten glass retaining clips. Do not over tighten.
   - The fibre rope on doors and glass has worn out. Replace.

The air-wash system

This is a system where secondary air is drawn into the stove (by combustion) through the top vent slide and deflected down the back face of the glass, thus preventing the smoke coming into contact with the glass. It does not mean that you will never have to clean the glass, but substantially lengthens the periods between having to do so. The air-wash system works best when burning dry wood. Wet and pitchy wood will produce more deposits in the glass. Also deposits will form on the back of the glass when the stove is operated on low heat for extended periods. To clean the glass, either use an oven cleaning fluid or dip a wet cloth in the wood ash (not coal ash-this may scratch the glass) and gently rub clean. Only do this when the stove is cold.

Air Controls

Air Wash

The “airwash” is controlled via the top of the stove, it is this “airwash” that keeps a clean an uninterrupted view of the fire, also aiding in good secondary combustion of the fuel and reducing emissions into the chimney and environment.

The riddling grate

The riddling grate allows ash to drop through into the ash pan, therefore allowing the build up of ash to be removed and allow proper circulation of air throughout the stove. When burning solid fuels riddling twice a day is usually sufficient .When burning wood, ash should be allowed to build up and generally weekly riddling will be sufficient .Too much riddling can result in emptying unburnt fuel into ash pan and should therefore be avoided.