

## USER MANUAL FOR BATCH FED INDEPENDENT WOOD LOG FIRED BOILERS

### SUPPLEMENTARY INSTALLATION INSTRUCTIONS FOR THE UK MARKET TO BE READ IN CONJUNCTION WITH THOSE IN THE INSTRUCTION BOOKLET

#### READ THE INSTRUCTION BOOKLET AND THESE SUPPLEMENTARY INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

These instructions together with those in the instruction booklet cover the basic principles to ensure the satisfactory installation of the boiler, although detail may need slight modification to suit particular local site conditions.

In all cases the installation must comply with current Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the boiler. If any guidance contained within this manual contradicts advice given in the main manufacturer's instruction manual then the most stringent advice must apply.

It should be noted that the Building Regulations requirements may be met by adopting the relevant recommendations given in British Standards BS 8303, BS EN 15287-1:2007 as an alternative means to achieve an equivalent level of performance to that obtained following the guidance given in Approved Document J.

Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the boiler is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at [www.hetas.co.uk](http://www.hetas.co.uk).

#### CO Alarms:-

Building regulations require that whenever a new or replacement fixed solid fuel or wood/biomass appliance is installed in a dwelling a carbon monoxide alarm must be fitted in the same room as the appliance. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions. Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

### HEALTH AND SAFETY PRECAUTIONS

Special care must be taken when installing the boiler such that the requirements of the Health and Safety at Work Act (1974) are met.

#### Handling

Adequate facilities must be available for loading, unloading and site handling.

#### Fire Cement

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact wash immediately with plenty of water.

#### Asbestos

This boiler contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

### **Metal Parts**

When installing or servicing this boiler care should be taken to avoid the possibility of personal injury.

## **BOILER PERFORMANCE**

Refer to the main instruction manual for details of the boiler's performance.

## **PREPARATORY WORK AND SAFETY CHECKS**

### **IMPORTANT WARNING**

This boiler must not be installed into a chimney that serves any other heating appliance.

There must not be an extractor fan fitted in the same room as the boiler as this can cause the boiler to emit fumes into the room.

### **Chimney**

In order for the boiler to perform satisfactorily the chimney height must be sufficient to ensure an adequate draught of approximately 15 Pa so as to clear the products of combustion and prevent smoke problems into the room.

NOTE: A chimney height of not less than 4.5 metres measured vertically from the outlet of the boiler to the top of the chimney should be satisfactory. Alternatively the calculation procedure given in EN 13384-1 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

Because the boiler runs at high efficiencies, the temperature of the flue gases is at times lower than conventional solid fuel appliances. Although it is not classed as a condensing appliance, the low flue gas temperature results in condensation occurring within the flue. Any chimney flue system must therefore be able to withstand the effects of condensate and operate under wet conditions (designation letter W). In addition it should be soot fire resistant and able to withstand the corrosive effects of flue products generated by solid fuels (designation G and 3 respectively). If installation is into an existing masonry chimney then it will require re-lining with a liner meeting the specification described above. Existing concrete or clay lined chimneys are not suitable for this boiler and must be lined as described above. All installations must be in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the lining system. Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperature from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation.

If there is no existing chimney then any new system must be to the designation described above and in accordance with Building Regulations Approved Document J.

A single wall metal fluepipe is suitable for connecting the boiler to the chimney but is not suitable for use as the complete chimney. The chimney and connecting fluepipe must have a minimum diameter of 150 mm and its dimension should be not less than the size of the outlet socket of the boiler.

Any bend in the chimney or connecting fluepipe should not exceed 45°. 90° bends should not be used.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the boiler in the presence of combustible materials due account

must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these boiler instructions.

If it is found that there is excessive draught in the chimney then a draught stabiliser should be fitted in the chimney above the chimney above the flue pipe connection. Fitting of a draught stabiliser will affect the requirement for the permanent air supply into the room in which the boiler is fitted in accordance with Approved Document J (see also combustion air supply).

Adequate provision e.g. easily accessible soot door or doors must be provided for sweeping the chimney and connecting fluepipe.

## **Hearth**

The hearth should be able to accommodate the weight of the boiler and its chimney if the chimney is not independently supported. The weight of the boiler is indicated in the brochure.

The boiler should preferably be installed on a non-combustible hearth of a size and construction that is in accordance with the provisions of the current Building Regulations Approved Document J.

The clearance distances to combustible material beneath, surrounding or upon the hearth and walls adjacent to the hearth should comply with the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these boiler instructions.

If the boiler is to be installed on a combustible floor surface, it must be covered with a non-combustible material at least 12mm thick, in accordance with Building Regulations Approved Document J, to a distance of 30 cm in front of the boiler and 15 cm to each side measuring from the door of the combustion chamber.

## **Combustion air supply**

In order for the boiler to perform efficiently and safely there must be an adequate air supply into the room in which the boiler is installed to provide combustion air. The provision of air supply to the boiler must be in accordance with current Building Regulations Approved Document J. An opening window is not appropriate for this purpose.

## **Connection to chimney**

All boilers have a flue gas connector that allows connection to either a masonry chimney or a prefabricated factory made insulated metal chimney in accordance with the instructions. This connection should never be reduced in diameter to lower than that of the flue gas connector of the boiler. In some cases it may be necessary to fit an adapter in the connection pipe to increase the diameter to the required minimum diameter of 150 mm for burning wood fuel in accordance with UK regulations. Any connections should be made gas-tight and sealed with a suitable sealing agent such as fire cement.

## **Connection to the central heating system**

The boilers may be installed on either open vented or sealed fully pumped systems. The water system must be properly vented and a double-feed indirect cylinder to the current specification in issue BS 1566 Part 1 for double indirect cylinders is necessary where there is a combined hot water and central heating system.

During installation caution must be made on the need for a gravity heat-leak radiator or towel rail to dissipate heat when the pump is off and the minimum load for this function.

The central heating system must be in accordance with BS EN 14336:2004: Heating Systems in Buildings. Installation and commissioning of water based heating systems. BS EN 12828: 2003; Heating Systems in Buildings. Design of water based heating systems. BS EN 12831: 2003; Heating Systems in Buildings. Method for calculation of the design heat load and BS 6880:1988 Parts 1 to 3, Code of Practice for low temperature hot water heating systems of output greater than 45kW where appropriate.

## **Electrical connections**

The installation of any electrical services during the installation of this boiler and the associated heating system must be carried out by a registered competent electrician and in accordance with the requirements of the latest issue of BS 7671.

## **Commissioning and handover**

Ensure all parts are fitted in accordance with the instructions.

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, before lighting the boiler. Once the boiler is under fire check all seals for soundness and that the boiler and water system are operating correctly. Ensure that the flue is functioning correctly and that all products of combustion are vented safely to atmosphere via the chimney terminal.

On completion of the installation and commissioning ensure that the operating instructions for the boiler are left with the customer. Ensure to advise the customer on the correct use of the appliance and warn them to use only the recommended fuel for the boiler.

Advise the user what to do should smoke or fumes be emitted from the boiler. The customer should be advised about restricting access to the boiler by children, aged and/or infirm people.

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**WARNING NOTE**

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken: -

- (a) Open doors and windows to ventilate the room and then leave the premises.
- (b) Let the fire go out.
- (c) Check for flue or chimney blockage and clean if required
- (d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

The most common cause of fume emission is flueway or chimney blockage. For your own safety these must be kept clean at all times.

**IMPORTANT NOTES**

**General**

Before lighting the boiler check with the installer that the installation work and commissioning checks described above have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the boilers' commissioning and handover the installer should have shown you how to operate the boiler correctly.

Do not light the boiler if there is a possibility that any part of the heating system may be frozen

Please make sure the ash-pit door and the hopper lid/charging door are firmly closed at all times whilst the boiler is in operation.

**CO Alarm**

Your installer should have fitted a CO alarm in the same room as the appliance. If the alarm sounds unexpectedly, follow the instructions given under "Warning Note" above.

**Boiler Access**

Access to the boiler should be restricted for children, aged and/or infirm persons by way of a lockable door to the room in which the boiler is installed.

**Chimney cleaning**

The chimney should be swept at least twice a year. It is important that the flue connection and chimney are swept prior to lighting up after a prolonged shutdown period. Where the chimney is believed to have served an open fire installation it is possible that the higher flue gas temperature from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation.

In situations where it is not possible to sweep through the boiler the installer will have provided alternative means, such as a soot door. After sweeping the chimney the boiler flue outlet and the flue pipe connecting the boiler to the chimney must be cleaned with a flue brush.

### **Periods of Prolonged Non-Use**

If the boiler is to be left unused for a prolonged period of time then it should be given a thorough clean to remove ash and unburned fuel residues. Empty the hopper of unburned fuel. To enable a good flow of air through the appliance to reduce condensation and to avoid door seals becoming stuck and subsequently damaged, leave the filling hatch and combustion chamber doors slightly ajar. These actions will reduce the possibility of unnecessary damage and corrosion.

### **Extractor fan**

There must not be an extractor fan fitted in the same room as the boiler as this can cause the boiler to emit smoke and fumes into the room

### **Aerosol sprays**

Do not use an aerosol spray on or near the boiler when it is alight.

### **Use of operating tools**

Always use the operating tools provided when handling parts likely to be hot when the boiler is in use.

### **Chimney Fires**

If the chimney is thoroughly and regularly swept, chimney fires should not occur. However, if a chimney fire does occur turn off the boiler immediately and isolate the mains electricity supply, and tightly close the doors of the boiler. This should cause the chimney fire to go out. If the chimney fire does not go out when the above action is taken then the fire brigade should be called immediately. Do not relight the boiler until the chimney and flue ways have been cleaned and examined by a professional.

### **Permanent air vent**

The boiler requires a permanent and adequate air supply in order for it to operate safely and efficiently. In accordance with current Building Regulations the installer may have fitted a permanent air supply vent into the room in which the boiler is installed to provide combustion air. This air vent should not under any circumstances be shut off or sealed.

## **USER OPERATING INSTRUCTIONS**

Please read the important notices given above before referring to the main instruction book for detailed operating instructions.

### **Frequency of cleaning ash and residues from combustion chamber and ash-box**

The owner is required to regularly carry out this cleaning operation and the frequency will depend on the heating load. When first put to use the boiler should be checked on a daily basis and experience will show how often this will eventually be required. Remember also that during the main heating season the cleaning interval will shorten as the load on the boiler will be higher.

### **Recommended fuels**

The boiler is designed to burn wood logs only as detailed in the main instruction book. Under no circumstances should you attempt to burn any other type of fuel.

### **General Maintenance**

It is important that any glass or other decorative surfaces are kept clean using the appropriate cleaning materials and techniques as to not damage the internal or external finishes of the boiler.

### **Spare Parts**

For more information on obtaining spare parts, please revert to the specific page of the manufacturer's original instruction manual or contact details provided.

### **HETAS Ltd Approval**

This appliance has obtained HETAS Ltd approval for burning wood logs only as specified in the main instruction manual. Approval does not cover the use of other fuels either alone or mixed with the recommended fuel, nor does it cover instructions for the use of other fuels.