

# Dean Stoves

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## **Operating Instructions for the Dean Forge Clearburn Junior and Junior SE Stoves**

(JRSE issue 1.March 2012)

### **All stoves meet the essential type test requirement BS EN13240:2001 + and 2:2004, CE marked**

#### **The Clean Air Act 1993 and Smoke Control Areas**

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).

The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorised" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.

The Dean Stoves, Clearburn Junior SE has been recommended as suitable for use in smoke control areas when burning wood logs.

To use the Clearburn Junior SE in smoke controlled areas the air control stop screw must be fitted.

Further information on the requirements of the Clean Air Act can be found here :

<http://smokecontrol.defra.gov.uk/>

Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements

## Unpacking Stove

The baffle plate will be found on the base of the stove and will need to be positioned as per diagram. Check position of bricks. The secondary air control knob will be found inside the stove stored with a glove and these instructions and will need screwing on.

## Safety Note

**Warning-** The external parts of the appliance will get very hot to the touch and due care will be needed when operating.

All stoves before being operated must be checked that the installation complies with all local, national and European standards.

Before the stove is first used or when fitting other appliances into the room, please check that adequate air vents are in place to cover the requirements of such appliances.

**Extractor Fans.** When operating an extractor fan in the same room or space as the appliance the extractor fan could cause the stove not to function properly and pull dangerous fume into the room. This must be checked by a trained qualified engineer before using the stove

## Wood & Suitable fuels

**Dry wood, 18% moisture content or below must be used or the stove and flue will tar up and the door won't stay clean.**

Wood is best seasoned by splitting it into a log and dried for 2 years in a covered area allowing air to pass through. Peat can also be used but must be dry.

Maximum Log Length	Maximum Log Diameter
330mm	100mm

**When used as a Multi Fuel, use only smokeless fuels recommended for enclosed appliances.**

**Please Note:** Appliances should not be used as general incinerators or with non-recommended fuels.

**At no time** should liquid accelerants I.e: Paraffin, Petrol, BBQ lighting liquid Etc be used.

The chimney needs to be swept at least once a year.

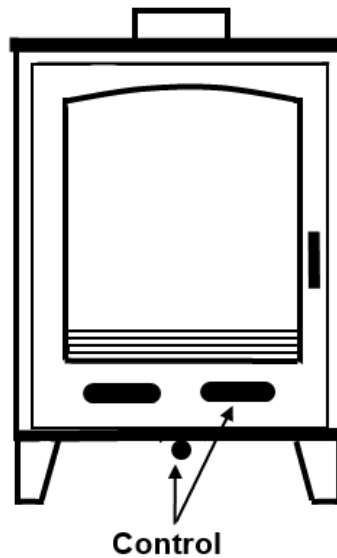
## Door Operation

The door handle can become very hot so use the glove provided.

**Cage Handle:** When closed the door handle will be at approximately 45° away from the door, about ¼ of a turn anti- clockwise to open.

**Bar Handle;** When closed the door handle will be pointing down and straight with the door about ¼ of a turn anti – clockwise to open the door.

## Controlling the stove



**Diagram A:**

**Primary air controls** on front of door.

**Secondary air control** knob between front stove legs

The primary air control slides are on the door. This control is used for lighting the fire or boosting the fire. This is also the main control when burning solid fuel

The secondary air wash control lever situated under the ash catch lip controls the preheated air wash and once the fire in the stove is established this is the control that should be used to control the fire when burning wood.

The secondary control knob works as follows:

Push fully in for maximum air flow into the stove and fully pull out for airflow to be shutdown. The stove is at its maximum efficiency when the lever is approximately half way.

### **Dampers Left Open**

Operation with the air controls or appliance dampers open can cause excess smoke. The appliance must not be operated with the air controls, appliance dampers or door left open except as directed in the instructions.

## Lighting The Stove When Using Wood

Lay a fire of sticks and paper. Firelighters can be used if necessary. Check the secondary air lever is fully open and the primary air vents partially open. Light the fire and as the fire catches the paper you may then fully open the primary air vents.

When the fire has fully established and the logs are burning well shut the primary air vents in the door and control the fire with the secondary air wash lever (if you are unable to sustain the fire with secondary control it is very likely that your logs have a high moisture content).

When refuelling the fire, to ensure clean burning, the primary air control should be opened for a couple of minutes so that flames are established on the newly fuelled logs. The primary air should be closed once these flames are fully established and the logs have become blackened. After refuelling, it is recommended that you do not leave the appliance unattended until it is certain that the logs are burning well with a sustained flame.

The appliance works best by refuelling with two medium sized logs. With the secondary air about 50% open, the logs should burn well for about 1 hour.

Please Note: For long periods of burning you will need to use seasoned hard wood. Longer periods of burning may cause the door glass to blacken, but this can be cleared when you get the fire back up to temperature and providing the secondary air control is slightly open this will then stay clear.

### Refuelling

When refuelling the fire, to ensure clean burning, the primary air control should be opened for a couple of minutes so that flames are established on the newly fuelled logs. The primary air should then be closed and the secondary air adjusted to create the desired flame pattern once these flames are established and the logs have become blackened.

After refuelling, it is recommended that you do not leave the appliance unattended until it is certain that the logs are burning well with a sustained flame.

**Do not load the fuel above the log retainer.**

Doors should always be closed in between refuelling to prevent fumes and spillage from the firebox.

When loading the fire be careful not to leave logs projecting over the log retainer as you may crack the glass when closing the door.

When the stove is in use in the winter season we suggest 25mm (1") of ash is left in the bottom when cleaning, as a wood fire burns more efficiently on a bed of ash.

If in continuous use the stove will most probably only need de-ashing every 3-4 Weeks. This is achieved by removing the log retainer and the plate under the door and shovelling the ash out into a **non-flammable container**, or we suggest using an ash clean attachment which can be plugged into your vacuum cleaner.

**Warning: Do not use your vacuum without this attachment.**

### **Please note:**

If there is insufficient burning material in the fire bed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke

### **Fuel overloading**

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

## **Lighting The Stove With Solid Fuel**

Lay a fire of sticks and paper, establish fire and then add the appropriate smokeless fuel and use the primary air control as the main control. If using a mixture of wood and coal, balance the primary and secondary control to achieve the desired fire.

When using solid fuel in this stove you must only use fuels recommended for enclosed appliances, Oil derivative fuels must not be used as this will shorten the life of the grate. The Ash pan will need emptying once a day.

The stove will work best using the primary air control. It is unlikely you will need to use the secondary air control which will only need to be opened slightly to keep the glass clear. With suitable adjustment of the primary air control, a bed of smokeless fuel charged to the level of the fire retaining bars smokeless should burn well for about 1.5 - 2 hours before the need to riddle the fire.

In the summer or when the stove is not being used for a long period of time, clear all the ash out and leave primary and secondary air vents open to prevent condensation.

### **Please Note:**

On lighting the paint on the stove will cure and give off a metallic smell. It is advisable to ventilate the room i.e. open the windows. This will subside fairly quickly after the stove has been burning hot for at least 2 hours.

The appliances have been assessed and are suitable for intermittent burning.

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in the instructions.

## **Pre-Season Check:**

The chimney needs to be swept at least once a year.

The chimney must be checked at this stage for blockages before lighting i.e.: bird's nests

This is probably the time to have the chimney swept before the beginning of the seasons.

Before lighting at the beginning of the season or after prolonged shutdown periods, check the door seals are in good condition; the steel insulating plates are in good condition and baffle plate is in position.

If the stove has been used for a long period of time we suggest the chimney be swept twice a year.

## **Notes**

### **Down draughts**

In adverse weather conditions down a draught may occur this could make the stove smoke, if this should happen shut all the stove air controls.

If this occurs on a regular basis call in your engineer.

It is possible a chimney cowl could cure this problem.

### **Air vents**

Check periodically that the exterior ventilation grill is clear.

### **Servicing**

All servicing must to be carried out by a qualified competent engineer on a regular basis.

No unauthorised modifications of the appliance should be carried out.

Use only replacement parts recommended by the manufacturer.

### **Faultfinding**

If the stove starts emits fumes into the room:-

- (1) Check there is no blockage or restriction in the flue.
- (2) Check the external air vent is not blocked.
- (3) Check the baffle plate has not dislodged itself from the stove.
- (4) Call an engineer.

If the stove does not perform properly this is could be due to unseasoned/wet wood or too much ash in the firebox.

In the case of the stove malfunctioning shut all vents, open the windows and let the residual fuel in stove burn out.

### **In the event of a chimney fire**

- Call the fire brigade
- Raise the alarm to let others in the house know
- Close down all the air controls of the stove, but be careful they could be very hot
- Move furniture, rugs and other objects away from the stove
- Check the chimney breast in other rooms for signs of excessive heat and move objects away if necessary
- At all times consider the safety of yourself and others in taking the above action

# **Fitting Instructions For The Dean Stoves Clearburn Junior**

## **Introduction**

The Dean Forge Clearburn range of stoves has evolved and has been continuously updated for the last 37 years. These stoves have a robust fully welded carcass with a cast iron double glazed door. These stoves have a ceramic brick lining incorporating a preheated air wash system with 3 outlet options- top, back and back box.

Before lighting the stove check that all installation instructions have been carried out.

## **Health And Safety Precautions**

All work must be carried out to the requirements Health and Safety at Work Act 1974. There must not be an extractor fan fitted in the room. There must be an air vent for all stoves of 5 kilowatt and over or meet current building regulations.

Stoves must be fitted to BS8303, BS6461 PT1-2 1984 building regulations.

All local regulations, including those referring to national and European standards need to be complied with when installing the appliance.

N.B

A suitably qualified person, such as a HETAS engineer or with the supervision of building control, must fit stove.

**As with all stoves fireguards must be installed when young children are present.**

## **Chimney**

All croft clearburn stoves must have a minimum chimney height of 4m measuring from the stove outlet, the chimney must not be less than 150mm (6") internal diameter.

These stoves are not suitable to be used in a flue-shared situation.

The chimney must be sound and of not too large a section. If not sound or too large, a liner will have to be fitted; s/s or ceramic suitable for solid fuel.

If the chimney draw is too high a flue stabilizer will have to be installed. When the chimney is warm the draw should not be lower than 0.10 water gauge.

All appliances have been tested at 12 PA with the doors closed.

If the flue is connected directly into an existing chimney without a liner the register plate must be fitted with removable doors to facilitate cleaning.

If it's not possible to fit doors in the register plate then a cleaning door will need to be fitted as near as possible to the connecting length of flue in the front, side or back of the chimney breast.

## **Hearth, Surround and Register Plate**

The stove must stand on non-flammable material at least 12mm thick (1/2"). The hearth must extend 225mm in front of the firebox and 150mm to the sides.

If the stove is installed into a fire opening made of non-combustible materials, we recommend a 150mm gap to the sides and 300mm above from non-combustible materials.

The appliance must be installed on a floor with an adequate load bearing capacity.

If the construction doesn't meet the existing prerequisite the floor must be reinforced or a load distributing plate could be fitted.



## **Table of distances from combustibles**

<b>Stove Type</b>	<b>Minimum from back of appliance to combustibles</b>	<b>Minimum from side of appliance to combustibles</b>
<b>Croft Clearburn Junior</b>	700mm	600mm

It may be necessary to shield a beam or mantle piece from the heat. The single wall flue from the top of the stove must be at least 3 times its diameter from combustible materials i.e. 150 (6") flue 450 (18").

Be careful not to place furniture or other combustible material too close to the stove.

## **Register plates**

Chimneys without continuous flue to the top , must have the register a plate made of 1.5mm steel treated to prevent corrosion (BS8303 part 3 9.5)

Register plates made of fireboard may only be used if a liner or flue runs from the top of the stove to the top of the chimney without a break. Always check the current building regulations.

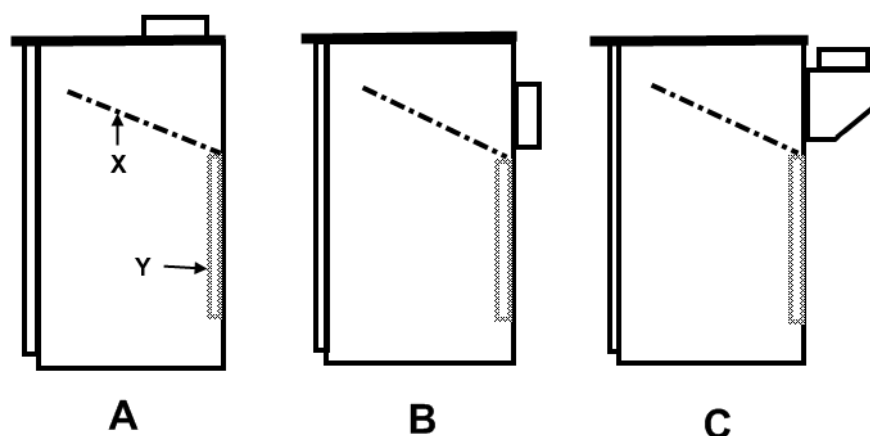
## Flue Connections and Outlets

Dean Croft Clearburn stoves can be flued from the top and the back, or with a vertical back box. Horizontal flue from back of stove should not exceed 150mm.

All flue connections must be sealed. Doors in the register plate must be present or a soot box fitted in the back or side of the fireplace to enable access to clean the chimney when the stove is installed without a liner.

If the chimney has been lined and cannot be swept through the stove an access door on the first length of flue must be installed for cleaning access.

The Croft Junior model requires a 125mm (5") first length of flue then stepping up into a minimum of 150mm (6") liner. When using this stove with the smoke exempt air stop fitted the flue liner can be reduced to 125mm (5"). We strongly advise a 150mm (6") flue liner be fitted when possible. The installation of a flue liner is recommended.



**X** = Position of baffle plat  
**Y** = Back protection brick

Diagrams showing from the top (A), back (B) and back box (C) outlet baffle plate position.

**Please Note:** All Profile top stoves use the 6mm black rope seal supplied under the flue spigot to bring the flue spigot flush with the stove.

## **Pre – Lighting Check and Commissioning**

Check all Building Regulations have been adhered to.

The baffle plate is in the right position.

A smoke test has been done to check the chimney is clear.

## **Data Plate**

All stoves are numbered and performance marked on a data plate which is found on a swinging arm located under the stove.

## **Air Vent**

Under part J of building regulations an air vent of the appropriate size must be fitted for all stoves with a kw rating of over 5kw.

Very air tight properties designed with air permeability less than or equal to 5.0 m<sup>3</sup>/ (h.m<sup>2</sup>) per hour, an air vent will need to be fitted for all kilowatts.

It must be considered when fitting air vents that it is taken into account any other appliance fitted within the room.

**Please Note:** Extractor fans when operating in the same room or space as the appliance may cause problems.

Air vent inlet grills must not be inadvertently blocked.

Air vents must not be fitted in positions where they can be inadvertently covered up.

As from the 1<sup>st</sup> October 2010 a compliant Carbon Monoxide Alarm must be fitted

## Multi fuel kit fitting instructions



This M/F kit consists of five parts:

- A. Centre Grate
- B. Main Grate
- C. Riddle bar
- D. Knob for riddle bar
- E. Ash pan tool
- F. Ash Pan

### **To fit:**

Remove the front panel under the door and the log retainer. Replace rear bricks with new thicker bricks supplied in kit.

With the rope seal on the main grate (**B**) facing you tilt the main grate clock wise, insert into stove lowering so the right hand side is under the brick retaining angle and the left hand leg slides down between the first brick and a bar that is welded to the stove. Level the main grate (**B**) then slide it the rest of the way into the stove. The front main grate (**B**) should now sit on the bars on each side at the front.

Remove the blanking bolt on the right hand side of the stove body and slide the Riddle bar (**C**) through the hole. Fit the Centre grate (**A**) with the arm facing forwards, tilt so you are able to insert the riddle bar (**C**) through the top of the hole in the arm then screw the Knob for riddle bar (**D**) on the end of riddle bar (**C**) outside the stove.

Fit ash pan and front plate below door. Your existing wood burning log retainer is not used with the M/F kit.

### **Table of mean flue temperatures with closed doors**

Stove Type	Flue gas temp down stream of spigot, closed doors.	
	Wood logs	Ancit
<b>Croft Clearburn Junior</b>	233°C	289°C

### **Flue Gas Mass Flow**

Stove Type	Flue gas mass flow (g/s)	
	Wood logs	Ancit
<b>Croft Clearburn Junior</b>	3.7	6.7

### **Stove Performance**

Croft Clearburn Junior	Wood burning	5kW nominal	83% Net Efficiency
	Solid Fuel (Ancit)	4.8kW nominal	70% Net Efficiency
Croft Clearburn Junior SE	Wood burning	5kW nominal	83% Net Efficiency
	Solid Fuel (Ancit)	5kW nominal	67% Net Efficiency

All stoves are tested to nominal outputs and will well exceed these kilowatt ratings.



## EC Declaration Of Conformity

The Undersigned, representing the following:

Manufacturer
<b>Dean Forge Ltd</b> Dean Prior, Buckfastleigh, Devon, TQ11 0LS

Herewith declare that the products:

Description	Product Code
Croft Clearburn Junior	STDFCRJL, STDFCRJ
Croft Clearburn Junior Inset	STDFCRJIN
Junior 105 SE	STDFJ105L, STDFJ105H, STDFJ105HWD
Croft Clearburn Slimline 5 SE	STDFCRSL5
Croft Slimline 6	STDFCRSL
Croft Clearburn Small	STDFCRSM, STDFCRSML
Croft Clearburn Medium	STDFCRM, STDFCRML
Croft Clearburn Large	STDFCRL

### **Description of product:**

Croft Clearburn wood and multifuel heating stove product range.

Steel bodied stove fitted with cast iron doors. Supplied in various sizes to give a range of heat output options.

Are in conformity with the provisions of the following EC Directive (S) when installed in accordance with the installation instructions in the product documentation:

98/106/EEC- 305/2011 Construction Products Directive

And the standards referenced below have been applied:

EN 13240: 2001 + Amendment A2: 2004 & inset BS EN13229:2001 + A1: 2003 + A2: 2004

Provisions to which the product conforms:

Product: Roomheater fired by solid fuel as covered under the scope of the standards listed. Intended use: Space heating in residential building.		
Characteristic	Performance	Report
Fire Safety	Satisfies	
Emission of combustible products and Thermal output/Efficiency	Croft Clearburn Junior- STDFCRJL/ STDFCRJ Co @ 13% O <sup>2</sup> Wood 0.31% Ancit 0.34% 5Kw @ 83% Wood – 5Kw @ 66.2% Ancit	6348-01
	Croft Clearburn Junior Inset- STDFCRJIN Co @ 13% O <sup>2</sup> Wood 0.35% Ancit 0.40% 5Kw @ 80.3% Wood -4.7Kw @ 73.2% Ancit	6700-1
	Junior 105SE- STDFJ105L/ STDFJ105H/ STDFJ105HWD co@ 13% O <sup>2</sup> Wood 0.31% Ancit 0.34% 5.3Kw @ 75.7% Wood -5Kw @ 66.2% Ancit	6931-SE-2
	Croft Slimline 5- STSFCRSL5 Co @ 13% O <sup>2</sup> Wood 0.28% Ancit 0.30% 5Kw @ 81.6% Wood – 4.9Kw @ 75.8% Ancit	6042-1
	Croft Clearburn Slimline 6- STDFCRSL 6 Co@ 13% O <sup>2</sup> Wood 0.37%- 6Kw @ 79.6% Wood	6348-04
	Croft Clearburn Small- STDFCRSM/ STDFCRSML Co@ 13% O <sup>2</sup> Wood 0.28%- 8.2Kw @ 76.2% Wood	6348-02
	Croft Clearburn Medium- STDFCRM/ STDFCRML Co@ 13% O <sup>2</sup> Wood 0.44%- 11.4Kw @ 75.9% Wood	6348-03
	Croft Clearburn Large- STDFCRL Co@ 13% O <sup>2</sup> Wood 0.22%- 13.9Kw @ 72.9% Wood	6700-2
Release of dangerous substances	None	
Surface temperature	Satisfies	
Mechanical resistance (to carry a chimney/flue)	Maximum weight to be supported 30Kg	

Test laboratory: 0692

Name: M.P Chew

Signature:



Position: Technical Director (s)

Date: 24<sup>th</sup> September 2012



Product Fiche according to Commission Delegated Regulation  
(EU)2015/1187

Energy Labelling of Local Space Heaters

Supplier's Name	Dean Stoves
Model	Clearburn Junior
Energy Efficiency Class	A+
Nominal Heat Output to Room (KW)	5.0
Nominal Heat Output to Water (KW)	n/a
Seasonal Space Efficiency (%)	73.0
Net Efficiency (%)	83.0

## **THE DEAN FORGE FABRICATION LTD STOVES GUARANTEE**

Dean Forge Fabrication Ltd offers a five year guarantee which covers the main body of the stove for manufacturing defects.

In the event of any failure we will replace any defective part free of charge, labour cost excluded.

This guarantee is invalid if the stove is not assembled, installed by a HETAS registered engineer or recognised competent person or operated as per these instructions or properly maintained or does not comply with current building regulations and any regional legislation in force at the time.

Dean Forge Fabrication Ltd does not guarantee the onsite assembly, installation or operation of the stove. Please seek advise from your supplier / installer for any relevant guarantees applicable to the installation.

Dean Forge Fabrication Ltd will not be held liable for any consequential or incidental loss, damage or injury, however caused.

Claims under this guarantee should be first made through your retailer.

This guarantee is only applicable in the UK.

Nothing in this guarantee shall effect your statutory rights.

### **Exclusions**

The following consumable parts are not covered by this guarantee:-

Fire grate, log retainer, baffle plate, fire bricks, glass panels and door seals.

Paint is also excluded from the guarantee as it will eventually deteriorate due to the normal working of the stove.

Your assistance is requested by filling in and returning the product Registration and Guarantee Form. This will help maintain our records and assist us in identifying your stove in the unlikely event of any problem occurring and also when you need to order any spare parts.



# PRODUCT REGISTRATION

Name .....

Address .....

.....

..... Phone Number: .....

## Suppliers Details:

Name .....

Address .....

.....

..... Phone Number: .....

## Installers Details:

Name .....

Address .....

.....

..... Phone Number: .....

HETAS Registration Number.....

Date of Purchase: ..... Date of Installation:.....

Stove Serial No: ..... Model: .....

**Dean Forge Fabrication Ltd**  
**Dean Prior**  
**Buckfastleigh**  
**Devon**  
**TQ11 0LS**