# THE MUCH WENLOCK

# Installation Instructions for Freestanding Much Wenlock Stove with Boiler

**Consumer Protection Act 1987**
As manufacturers and suppliers of cooking and heating products, in compliance with Section 10 of the Consumer Protection Act 1987, we take every care to ensure, as far as is reasonably practicable, that these products are so designed and constructed as to meet the general safety requirement when properly used and installed. To this end, our products are thoroughly tested and examined before despatch.

**IMPORTANT NOTICE:** Any alteration that is not approved by Aga-Rayburn could invalidate the approval of the appliance, operation of the warranty and could also affect your statutory rights.

**Control of Substances - Health and Safety**
**Important**
This appliance may contain some of the materials that are indicated below. It is the Users/Installers responsibility to ensure that the necessary personal protective clothing is worn when handling where applicable, the pertinent parts that contain any of the listed materials that could be interpreted as being injurious to health and safety, see below for information.

**Firebricks, Fuel beds, Artificial Fuels -** when handling use disposable gloves.

**Fire Cement -** when handling use disposable gloves.

**Glues and Sealants -** exercise caution - if these are still in liquid form use face mask and disposable gloves.

**Glass Yarn, Mineral Wool, Insulation Pads, Ceramic Fibre, Kerosene Oil -** may be harmful if inhaled, may be irritating to skin, eyes, nose and throat. When handling avoid inhaling and contact with skin or eyes. Use disposable gloves, face-masks and eye protection. After handling wash hands and other exposed parts. When disposing of the product, reduce dust with water spray, ensure that parts are securely wrapped.

## RATING

| | | Top Flue Outlet | Rear Flue Outlet |
|---|---|---|---|
| Direct Space Heating | kW<br>Btu/h | 4.3<br>14,500 | 3.9<br>13,500 |
| Water Heating | kW<br>Btu/h | 6.1<br>21,000 | 7.3<br>25,000 |

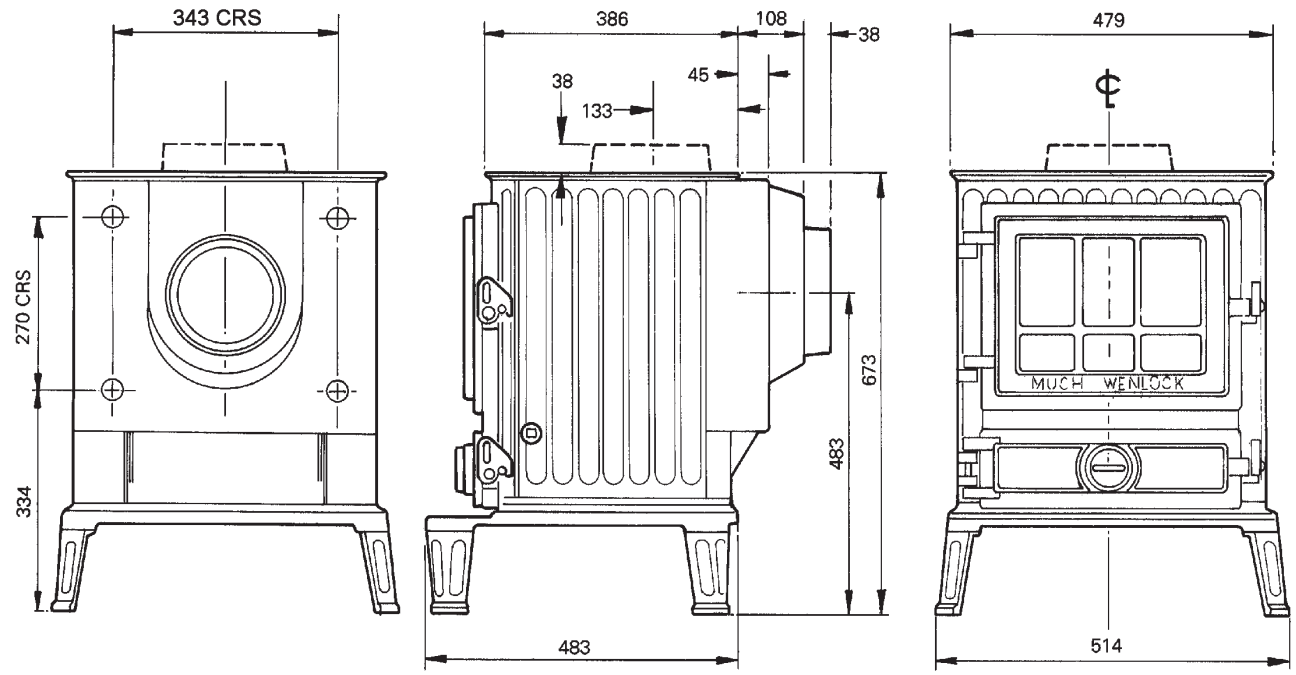
**NOTE:** THERE ARE TWO SETS OF BACK OUTLET 'FLOW AND RETURN' CONNECTIONS ON THE L.H. OR R.H. SIDE OF THE BOILER. THE STOVE CAN BE INSTALLED AS A TOP OR BACK FLUE OUTLET APPLIANCE.

## WARNING
## BOILER MODEL

UNDER NO CIRCUMSTANCES MUST THE APPLIANCE BE FIRED DRY AS DAMAGE WILL OCCUR

The maximum room size (of normal construction) and radiator surface that can be heated are:

| | | Top Flue | Rear Flue |
|---|---|---|---|
| Direct Space Heating | $m^3$<br>$ft^3$ | 73.6<br>2600 | 67.9<br>2400 |
| Pipe and Radiator Surface (no domestic hot water) | $m^3$<br>$ft^3$ | 12.2<br>131.25 | 14.5<br>156.25 |
| Radiator Surface (with domestic hot water) | $m^3$<br>$ft^3$ | 9.9<br>106.25 | 12.2<br>131.25 |




DESN 510595 A

The recommended heating surface area is based on an average heat emission of 0.5 kW/m$^2$ (160 Btu/h/ft$^2$). These figures are maxima and must not be exceeded. A margin (about 10% or 1.4m$^2$ - 15ft$^2$) is recommended.

## PERFORMANCE

The Much Wenlock Stove with Boiler is intended to provide space heating and the heating of domestic hot water and radiators has been approved by the HETAS LTD Appliance Approval Scheme. The appliance and burning rate are controlled by the manual adjustment setting of the ashpit door spinwheel only.

## HOT WATER SYSTEM

1. A 140 litre capacity indirect hot water storage cylinder of the double feed type, complying with BS 1566 Part 1: DF TYPE 8 should be lagged and fixed vertically as near as possible to the stove.
   The 28mm minimum diameter primary flow and return pipes must not exceed 10m in length and pipes longer than 5m must be lagged. Ensure that the flow pipe rises continuously from the stove boiler to the cylinder to ensure good gravity circulation. In combined systems, the water draw-off pipes to the taps must be dead-leg connections from the vent/expansion pipe.
2. One boiler flow connection (preferably that to the cylinder), must have an open vent. The connection to the boiler must be such that air cannot be trapped in the boiler. Any pipe size reduction must be made on the vertical pipe of the vented flow pipe.
   The heating flow and return pipes may be 22mm and should preferably be connected to opposite tappings to each other on each side of the boiler.
3. All installations must be fitted with a drain tap at the lowest point of the system.
4. It is recommended that a gravity heat leak radiator 0.9 - 1.4m$^2$ (10-15ft$^2$) heating surface be included, or a reverse acting cylinder thermostat to activate the pump in the event of overheating.
5. Long reach male fittings will be required to make pipework connection into the boiler.

## THE CHIMNEY

For correct operation of the appliance, the height of the chimney from its base should not be less than 5.5m and terminate above the roof in accordance with current Building Regulations Section J/1/2/3 and requirements as outlined in BS 6461 Part 1 and BS 7566 Parts 1 to 4 should be observed.

The structural flue through the chimney should not be less than 175mm diameter. Pargeted lined flues, 230mm x 230mm must be in sound condition, and any internal offsets should not be less than 60° to the horizontal. Check that the flue exit is not obstructed or reduced in size.

**IMPORTANT:** FAILURE TO OBSERVE THE RECOMMENDED MINIMUM SIZE OR METHODS OF FLUE CONNECTION MAY LEAD TO EMISSION INTO THE ROOM AND REDUCED BURNING RATES.

**Existing Chimney**

The internal and external condition of the chimney should be checked **before** the appliance is installed and rectification made where necessary to prevent air leakage or porosity.

The flue through the chimney should be formed with 175mm diameter minimum moisture and acid resistant liners to BS 1181 or precast linings as specified in the current Building Regulations and requirement in BS 6461 Part 1 and BS 7566 Parts 1 to 4 should be observed.

When repairing existing chimneys, it is recommended that the Building Inspector be consulted before commencement of work with particular attention to the chimney height and its termination.

**NOTE: THE CHIMNEY MUST BE SWEPT BEFORE INSTALLATION.**

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 after one month of regular use.

**New Chimney**

The flue should not be less than 175mm diameter and its soundness confirmed by smoke testing or consulting HETAS LTD who will give advice on the test method. Ensure the chimney liners are free of any internal projections such as building jointing composition before the appliance is installed.

**Factory-made Insulated Chimneys**

It is recommended that the internal face of the chimney, be refractory lined and otherwise comply with BS 4543. The recommended minimum diameter is 150mm and chimney manufacturers should be consulted for further advice.

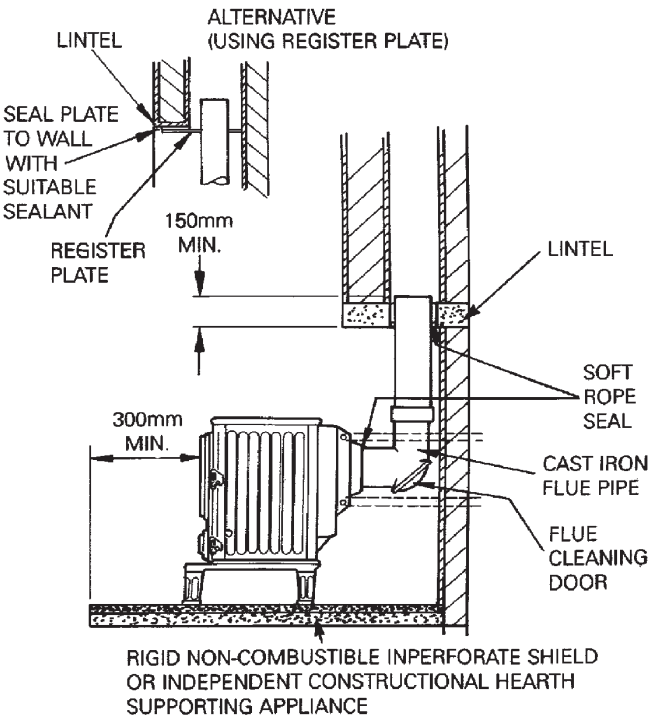



Fig. 1a DESN 510596

**Chimney Terminations**

All chimney should terminate above roof level in accordance with current Building Regulations Section J/1/2/3 and as outlined in BS 6461 Part 1 and BS 7566 Parts 1 to 4.

However well designed, constructed and positioned, the satisfactory performance of a flue can be adversely affected by the downdraughts caused by adjacent tall buildings and trees or even a nearby hills. These deflect the wind, creating a zone of high pressure over the terminal causing it to blow directly down the chimney flue.

A suitable anti-downdraught terminals such as the MARCONE will usually effectively combat low pressure down-blow but no known cowl is likely to prevent downdraught due to a high pressure zone.

**NOTE:** ADVISE THE USER TO ENSURE THE CHIMNEY FLUES ARE THOROUGHLY SWEPT AT A MINIMUM OF 12 MONTHLY INTERVALS AFTER THE APPLIANCE IS COMMISSIONED.

## PREPARATION OF BUILDERS RECESS OPENING

The appliance and recess, hearth and chimney flue installation should be in accordance with the relevant current recommendation of the British Codes of Practice BS 8303 and BS 6461 Part 1 and BS 7566 Parts 1 to 4, with the boiler and heating installation complying with BS 5449 Part 1.

The boiler section must also be installed in accordance with the bye laws of the Local Water Undertaking, Regulations for the Electrical Equipment of Buildings - published by the Institute of Electrical Engineers, and any relevant requirement of the Local Authority.

The appliance can be installed in a non-combustible recess in which the hearth must be level and together with the adjacent walls, conform to the current Building Regulations. See Figs. 1b and 2a.

A rectangular recess is required, not less than 640mm wide, not less than 480mm deep from the face of the recess and 1278mm minimum height for a top flue outlet version. Holes will be required in one or both sides for the pipework.

The clearance between the appliance and any combustible material must be maintained as indicated in Figs. 1a, 1b, 2a, 2b and 3.

## AIR SUPPLY

A permanent unobstructed air vent is required having a minimum effective area of 60cm$^2$ and communicating directly to outside air or an adjacent room which itself has a permanent air vent direct to outside air.

**Air Extract Fans**

Building Regulations 1990 permit the installation of an air extract fan in a room containing a solid fuel appliance. The appliance must be able to operate effectively whether or not the fan is running. To this end:

1. Ensure the fan duty is capable of coping with the respective room volume. Avoid an oversize fan duty performance.
2. Follow the directions recommended by the fan manufacturer on the necessary air ingress needed for

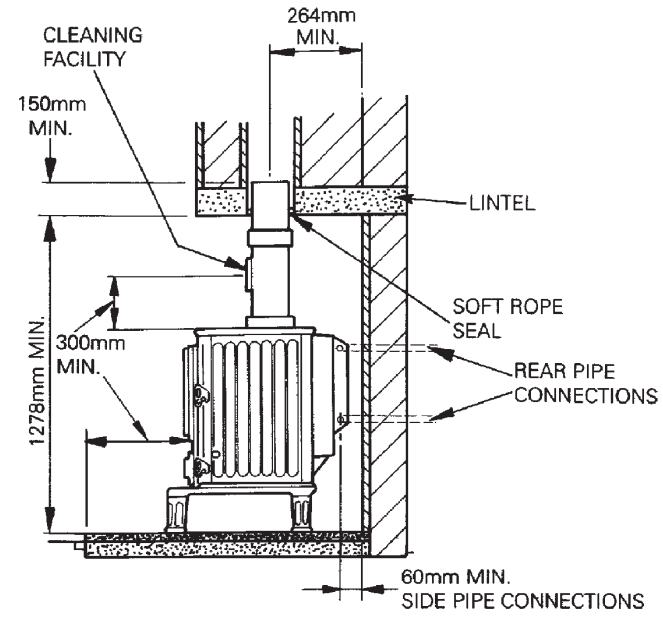



Fig. 1b DESN 510597

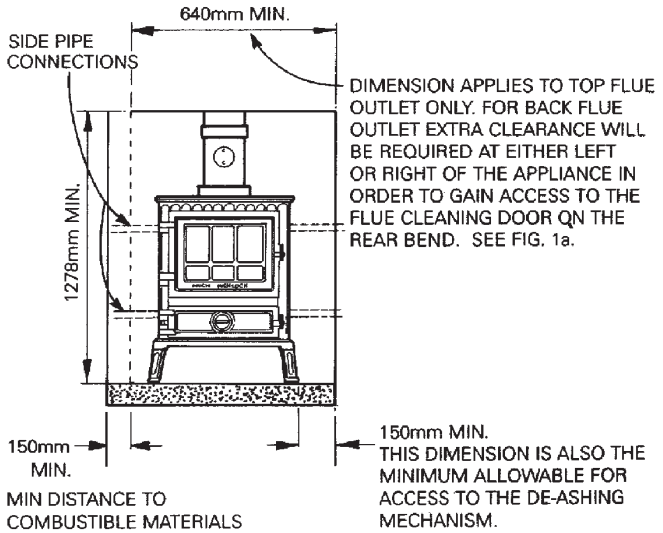



Fig. 2a DESN 510598

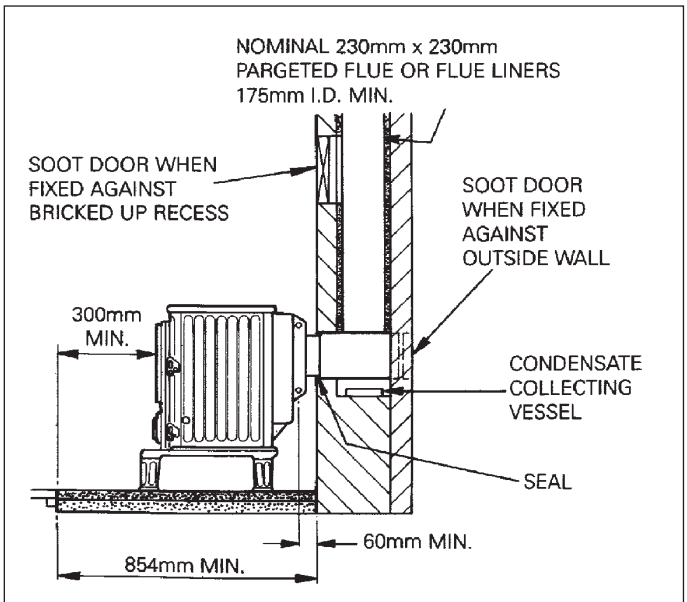



Fig. 2b DESN 510599

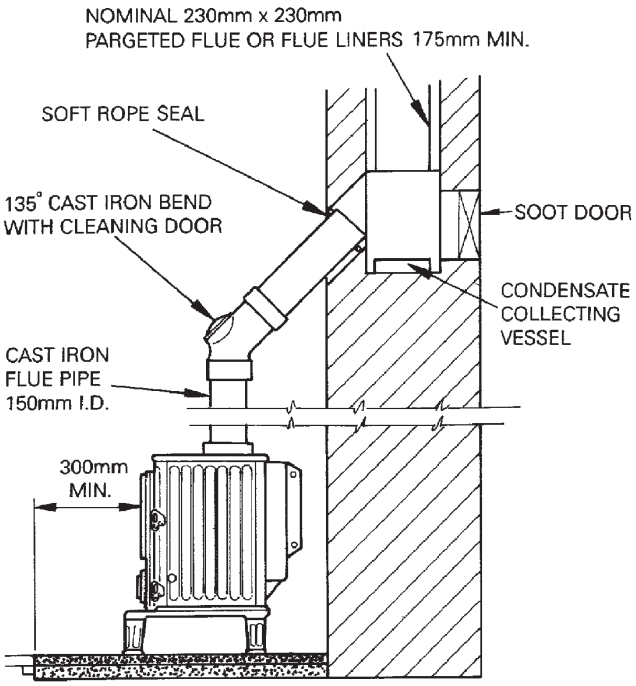



Fig. 3 DESN 510600

the fan or overhead cooker hood, then add this compensatory area to that recommended for the appliances primary air needs, to form a permanent air vent.

3. Ensure the wall location of the fan does not deprive the appliance of primary air.

## FLUE LAYOUT

In Fig. 1b and 2a the stove is installed in an existing recess directly below the chimney flue. The exit end of the flue pipe must extend a minimum of 150mm into the overhanging brickwork. Any cavities or pockets above the register plate should as far as possible be filled with the flue pipe exit extended into the throat of the chimney.

If a flue liner or insulated chimney is used, the diameter should not be less than 175mm and 150mm respectively.

Fig. 2b shows a back flue outlet into a chimney brickwork.

In Fig. 3 the stove is connected to an existing brick flue with a length of flue pipe. Square bends and horizontal runs must not be used and a cleaning door included at every bend.

EXTENDED LENGTHS OF HORIZONTAL PIPEWORK MUST BE AVOIDED AND ARE NOT RECOMMENDED, AND SHALL NOT EXCEED 150mm.

**NOTE:** WHATEVER METHOD OF INSTALLATION IS UTILISED, AIR MUST NOT BE ALLOWED TO ENTER THE CHIMNEY EXCEPT THROUGH THE STOVE AND ALL JOINTS MUST BE AIR-TIGHT. IF THE CHIMNEY IS UNLINED AND THERE IS ANY DOUBT ABOUT ITS CONDITION, IT SHOULD BE LINED IN ACCORDANCE WITH CURRENT BUILDING REGULATIONS.

PROVISION MUST ALWAYS BE MADE FOR SWEEPING THE CHIMNEY.

IMPORTANT: CEMENT PIPES AND FITTINGS MUST NOT BE USED WITHIN 2m OF THE STOVE OUTLET CHIMNEYS OF PLAIN PIPE ARE NOT RECOMMENDED BUT CERTAIN PROPRIETARY MAKES OF INSULATED CHIMNEY ARE SUITABLE.

## INSTALLATION

Handle the firedoor with care to ensure the glass panel remains intact.

The stove is delivered fully assembled but all fire cement joints should be examined for soundness and if necessary, re-sealed before installation.

After unpacking the stove, remove all packaged parts from inside the stove and inspect the stove to ensure no damage gas occurred during delivery.

If there is a problem, contact your local stockist.

Packaged parts contain a Flue Outlet Blanking Plate, Flue Collar (for top or back outlet) and Operating Tool Support Collar Cradle complete with two screws to secure the Cradle to the bottom R.H. side of stove.

1. Plug any of the 1in. BSP boiler connections not required and fit half unions as required.
2. Position the stove in required position relative to chimney flue and on non-combustible hearth ensuring there is sufficient room allowed on stove R.H. side to enable operation of riddling tool.

   Blank off and seal with cover plate, flue outlet not used.
3. Cut length of 150mm diameter pipe to suit chosen method of flue connection. Insert flue pipe spigot in stove outlet socket and caulk joint with soft rope and cement.

   Top Flue Outlet installations must incorporate an access door in the flue pipe near the surface of the stove for flue cleaning.
4. Connect flue pipe to chimney with selected method.
5. Making connections to the boiler with provision for draining at the lowest point, fill with water and test. Make good any brickwork around the pipes.
6. Check that the bottomgrate reciprocates correctly and that the front firebar is correctly located.

## COMMISSIONING

Check that the system is full of water and free from air locks.

a. When lighting, open firedoor and place paper and sticks with a small quantity of fuel onto the bottomgrate, ignite paper and set the ashpit door spinwheel fully open and lock firedoor.
   When established, balance the water system.

b. With the appliance under fire, check for soundness of seals/joints and that the flue functions correctly in permitting all smoke and fumes to be vented through the chimney.

# TESTING AFTER COMMISSIONING

After completing the installation, the Heating Contractor should demonstrate to the user, the operation of the fire, e.g. ashpit door, spinwheel setting, the method of riddling as well as the routine flue cleaning method.

Ensure the Operating Instructions are left in the possession of the user.

Weight of complete stove 184Kg

# GENERAL INFORMATION

Bottomgrate bars - there are six grate bars of one type and seven of another.

The seven bar occupy the ends and intermediate positions. The six bars fit between these. See that they are properly placed on the cross front firebar and move freely when riddled.

**Flue Pipes**
C.I Pipes and bends of 150mm diameter painted black are available through your local stockist.
Replacement parts if required are available from your local stockist

**For further advice or information contact your local distributor/stockist**

With Aga-Rayburn's policy of continuous product improvement, the Company reserves the right to change specifications and make modifications to the appliance described and illustrated at any time.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