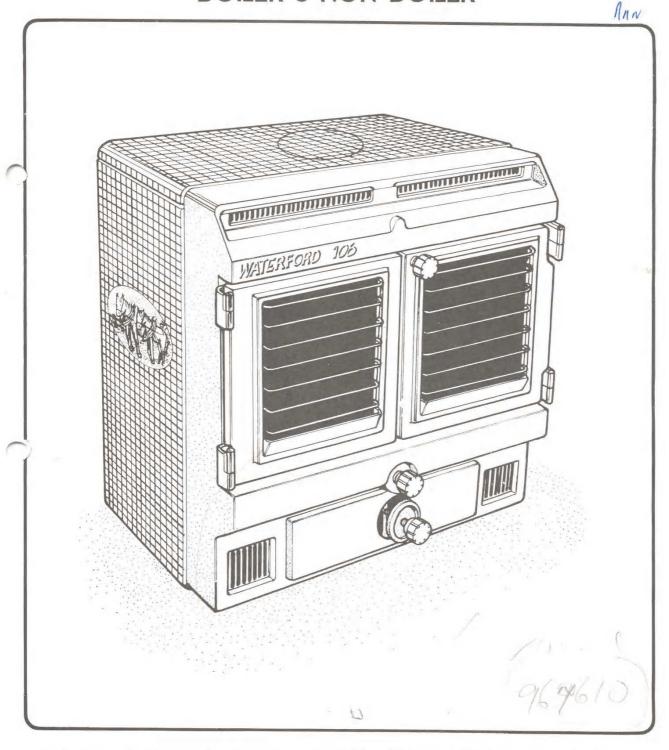
# WATERFORD 106

WOOD AND COAL BURNING FIREPLACE STOVE BOILER & NON BOILER



INSTALLATION AND OPERATING INSTRUCTIONS

#### WATERFORD 106 WITH BACK BOILER

To ensure safety, satisfaction and maximum service, this unit with a capability of combined domestic hot water and central heating should be installed by a trained and competent Fitter. The provision of a central heating facility requires that the hot water systems involved conform fully to good plumbing practice and established standards.

Note: When installing a boiler model, a back outlet flue connection is recommended to get maximum boiler performance.

#### BOILER

Rated Output (Non Boiler) — Up to 80,000 Btus.
Rated Output (Boiler) — Up to 39,000 Btus./hr.
Maximum boiler output cannot be maintained unless fuel is being burned at a rate of 6/8 lbs. per hour. When burning turf or wood, reduced output will apply because of lower calorific value of fuels.

The boiler is constructed of mild steel plate with welded seams 6 mm thick on exposed fire surfaces and 4 mm on others and is tested to a pressure of 40 lbs. P.S.I. Four Boiler connections are tapped 1" B.S.P. Flow and return pipes to the cylinder should be on gravity and 1" in diameter.

NEVER WITH A CENTRAL HEATING BOILER, PERMIT THE PRIMARY CIRCULATION TO THE CYLINDER TO BE DEPENDENT ON A CIRCULATING PUMP.

#### CYLINDER

A 30 gallon indirect cylinder fixed upright is recommended for hot water storage and it should be connected to a boiler by 1" diameter flow and return piping. The pipes should not exceed 30' each in length and anything in excess of 20' must be fully lagged. The shorter the run of pipework the more effective the water heating efficiency and to this end, the cylinder should be fully lagged.

#### INSTALLATION INSTRUCTIONS

The Waterford 106 is a multi fuel burning fireplace stove and must be connected to a chimney of the proper type and size.

#### **CHIMNEYS**

Do not connect this unit to a chimney flue serving another appliance.

The chimney may be of masonry construction or factory built twin skin insulated type. The chimney must terminate at least two feet higher than any portion of the roof that is within ten feet of the chimney and for efficient operation it must not be subject to changes in atmospheric conditions. Always ensure that the connection is to a chimney of the same size — never connect to one of smaller dimensions. Chimneys wholly constructed of single skin pipe on the outside of buildings are not recommended under any circumstances. Such chimneys will inevitably give rise to smoking, down-draught and condensation. Your unit is only as good as the chimney you install it in.

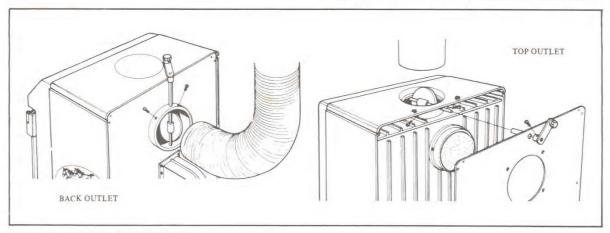
Provision must be made in the chimney for cleaning by installing a soot box with a cleaning door.

#### CHIMNEY SIZE

The chimney must have a cross-section area of at least 30 sq. inches or a diameter of at least six inches. Never connect to a smaller chimney.

#### HEARTH AND FLOOR PROTECTION

The floor under the stove must be protected from radiant heat from the stove base and from sparks or embers which might fall from the door when stoking and refueling. Where possible the floor in and around the stove should be of non-combustible material — (brick, concrete, stone, slate, metal) or one inch thick asbestos millboard. Never install on timber floor without insulation.

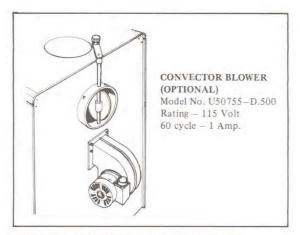


## COMBUSTIBLE CLEARANCES

The minimum clearances to combustible materials should be not less than 36" unless proper non-combustible insulation is used, between stove and combustible area.

# CHIMNEY CONNECTION

Your Waterford 106 has an optional top or back flue outlet. (See illustration No. 1) Flue Blanking Plate and Damper arrangement are interchangeable.



#### OPTIONAL CONNECTOR FAN BLOWER

A fan blower is also available for attachment to your Waterford 106 as an optional extra.

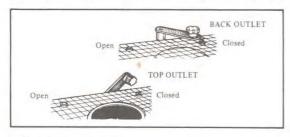
Provision is made on the back of the unit for the installation of the blower. To accommodate this extra you would need to install your unit with a 10" clearance between the back of the stove and the wall. The fan is installed by removing and discarding the blanking plate on the sheet iron back plate (see illustration No. 2). Use the same screws to fasten the fan assembly into position. The supply cord to the fan must be plugged to a grounded socket in accordance with standard electrical practice. Take care to route supply cord away from the stove and sharp objects.

## **OPERATING INSTRUCTIONS**

Before lighting your Waterford 106 make sure your chimney connection is well sealed and the unit is installed according to installation instructions. The first few fires should be relatively small to "season" the stove and installation.

# CAUTION

Never use Gasoline, Gasoline-Type Lantern Fuel, Kerosene, Charcoal, Lighter Fluid, or similar liquids to start or "freshen up" a fire. Keep such liquids well away from the heater while it is in use.

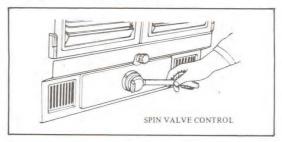


#### CHIMNEY DAMPER

The chimney damper is part of the flue outlet collar. Its function is to control the chimney draught and so reduce heat loss up the chimney. The chimney damper is operated by the Fire Tool provided. When this damper is in the fully closed position, a free area is allowed so as not to close the flue completely. The control and setting depends on the available chimney draught.

#### PRIMARY AIR INLET CONTROL

The spin valve on the ashpit door controls the primary air for combustion and so controls the rate of burning. The spin valve is operated by the fire tool provided. The setting of the spin valve depends on the rate of burning required. By opening the spin valve the rate of burning is increased and closing it reduces rate of burning. Practice will show how adjustment of the spin valve affects the burning rate. Secondary combustion air is also controlled by the spin valve. This air is channelled behind the cast iron baffle below the fire door level and is emitted at both sides of the fire box opening.



#### CONVECTION AIR

Natural convection takes place through the built in convection chamber. Air is taken in through the side vents at the ashpit sides and circulates through the convection chamber where it picks up heat and circulates the warmed air back into the room. This level of convection may be increased by the use of the fan blower.

#### TO START YOUR WATERFORD 106

Lay a few crumpled sheets of paper on the grate then some wood kindling to get the fire started. Open the fire doors and light the paper. Close the doors and open the spin valve fully. The kindling will catch fire quickly. Place some fuel on top. After the fuel has caught, adjust the spin valve to suit your heat requirements. Avoid a big, roaring fire until the unit has been used and seasoned with small fires over a few days.

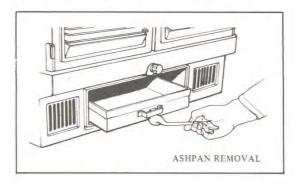
The spin valve controls the rate of burning, the wider the opening the faster the rate of burning, the smaller the opening the slower the rate of burning. You will soon learn the best ways and means of using the fireplace stove in order to attain maximum efficiency.

# WARNING:

Keep all combustible materials at least three feet away from the stove and connection pipes. Never dry clothing on or near the fireplace stove or within three feet of it.

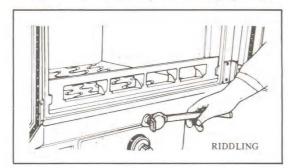
#### DISPOSAL OF ASHES

Your stove is provided with a steel ashpan. This ashpan should be emptied every day.



If ashes are allowed to build up to grate level you could damage the firebars by overheating. We recommend that you remove ashes after you have riddled the fire following overnight burn.

Ashes should be placed in a metal or other noncombustible container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible material, pending final disposal. If the ashes are buried in soil, or otherwise dumped they should be retained in the closed container until they are thoroughly cooled.



#### RIDDLING

Your unit is equipped with a bottom grate riddling device for riddling the fire box and is operated from outside the unit to eliminate opening of door so causing dust in the room.

#### CREOSOTE FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapours, which combined with expelled moisture forms Creosote. The Creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result Creosote residue accumulates on the flue lining. When ignited this Creosote makes an extremely hot fire. The chimney and chimney connector should be inspected at least twice monthly during the heating season to determine if Creosote build-up has occurred. If Creosote has accumulated it should be removed to reduce the risk of a chimney fire.

#### **MAINTENANCE**

To ensure that your Fireplace Stove will operate safely and with maximum efficiency for years the entire installation must be properly maintained. During periods of use, the Stove, Chimney Connectors, Joints and the main Flue itself must be kept clean and in good working condition.

(PORCELAIN - VITREOUS - ENAMEL FINISH IS GLASS-LIKE, NEVER APPLY A WET OR DAMP CLOTH, BRUSH ETC. TO PORCELAIN UNLESS AND UNTIL THE STOVE IS COLD.)

#### RECOMMENDED FUELS

Anthracite 1" to 2", House Coal 1" to 3", Coke 2" to 3" Coalite, phurnacite, Rexco Royal, Sunbrite Doubles and Sunbrite Singles. Turf Briquettes, Machine Turf and Fry. Hard seasoned wood logs maximum length 20" long.

# WATERFORD FOUNDRY LTD.

BILBERRY, WATERFORD.

The manufacturers reserve the right to make alterations to design, materials or construction for manufacturing or other reasons subsequent to publication.

PHONE 051-75911