JØTUL

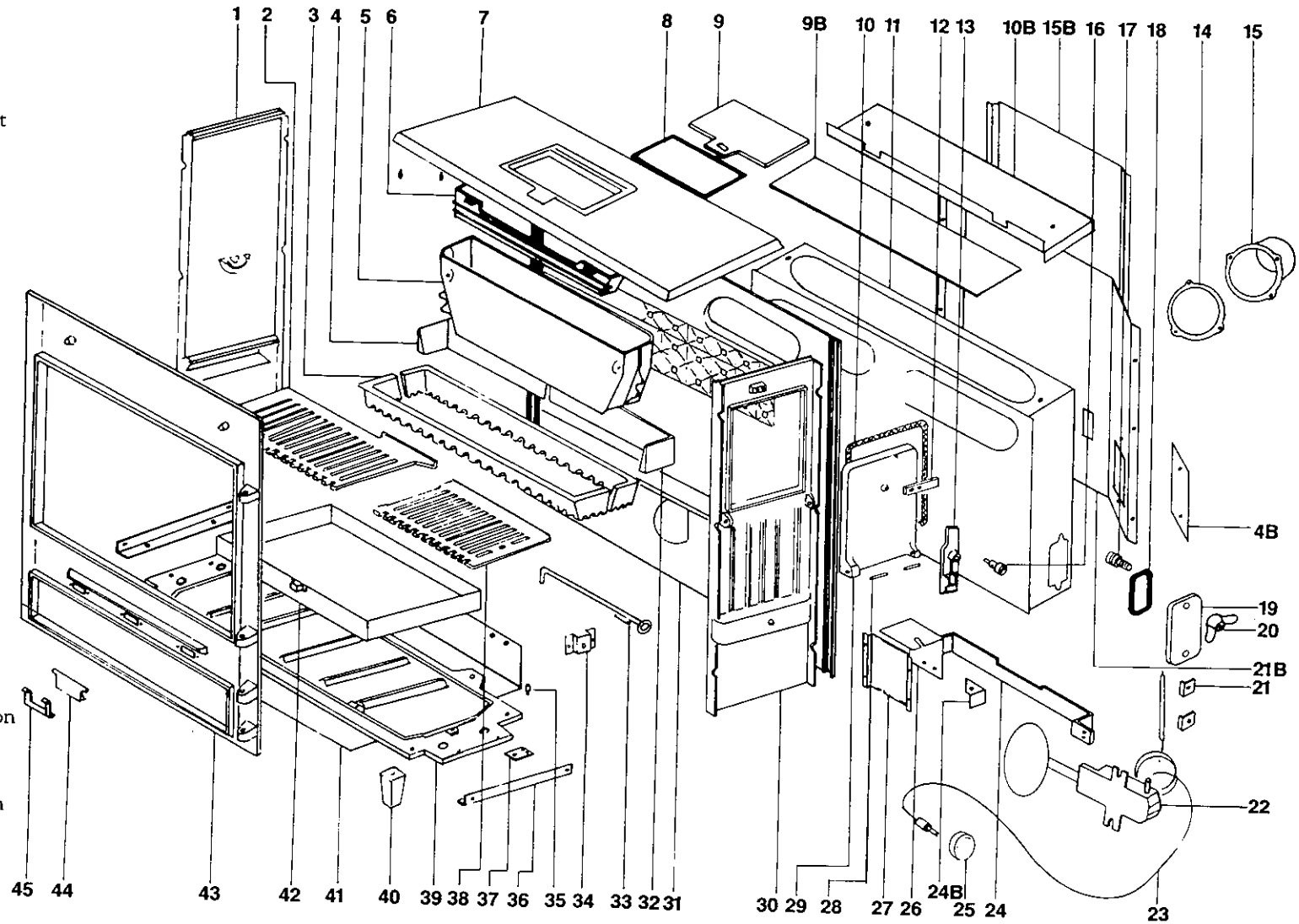
466
COAL & WOOD STOVE

INSTALLATION & OPERATING INSTRUCTIONS

SAFETY NOTICE: IF THIS JØTUL STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

Tested in accordance with U.L. 1482, and listed by R.F. Geisser and Associates Testing Laboratories, E. Providence, RI 1986

Part No.	Description
1.	Left side (cast iron)
2.	Left bottom grate
3.	Front half of fire basket
4.	Left lateral fire box protection
4B.	Shield cover plate
5.	Half hopper
6.	Half raise of hopper
7.	Top plate
8.	Knitted rope fibre glass
9.	Loading valve
9B.	Gasket for the top of the heat exchanger
10.	Fibre glass rope
10B.	Top of the heat exchanger
11.	Heat exchanger
12.	Stop lateral door handle
13.	Lateral door handle
14.	Flue outlet gasket
15.	Flue outlet
15B.	Outer rear shield
16.	Screw for handle
17.	Butterfly screw
18.	Fibre glass rope
19.	Clean out plate
20.	Butterfly
21.	Glass tightener
21B.	Rear heat shield
22.	Mayer thermostat and valve
23.	Thermostat cable
24.	Stop thermostat valve
25.	Thermostat knob
26.	Thermostat protection
27.	Thermostat support
28.	Pin
29.	Lateral door (cast iron)
30.	Right side (cast iron)
31.	Back plate
32.	Right lateral fire box protection
33.	Grate separating rod
34.	Grate rod support
35.	Fastening of side panel
36.	Distance piece for side column
37.	Support bracket
38.	Right bottom grate
39.	Bottom
40.	Leg
41.	Floor heat shield
42.	Ashtry
43.	Front part
44.	Flap for ashes
45.	Hinge for flap for ashes



46. Rivet CTR Ø 3 mm L 6 mm
48. Frame glass door
49. Glass fibre gasket 25x3
50. Side column
50B. Square rear protection fixing
51. Left back screen
52. Decorative panel
52B. Cover for decorative panel
53. Pin
54. Stop Magnetic Lock
55. Magnetic Lock
56. Right side (sheet steel)
57. Knob
58. Side column (right-back)
58B. Tool holder
59. Plate rear protection fixing
60. Front right screen
61. Fibre glass rope
62. Glass door
63. Glass
64. Pin
65. Fibre glass rope
66. Ashtray door
67. Stove tool
68. Standard hook
69. Poker
70. Screw for handle
71. Adjusting screw for handle
72. Handle
73. Stop right side (sheet steel)
74. Left side (sheet steel)

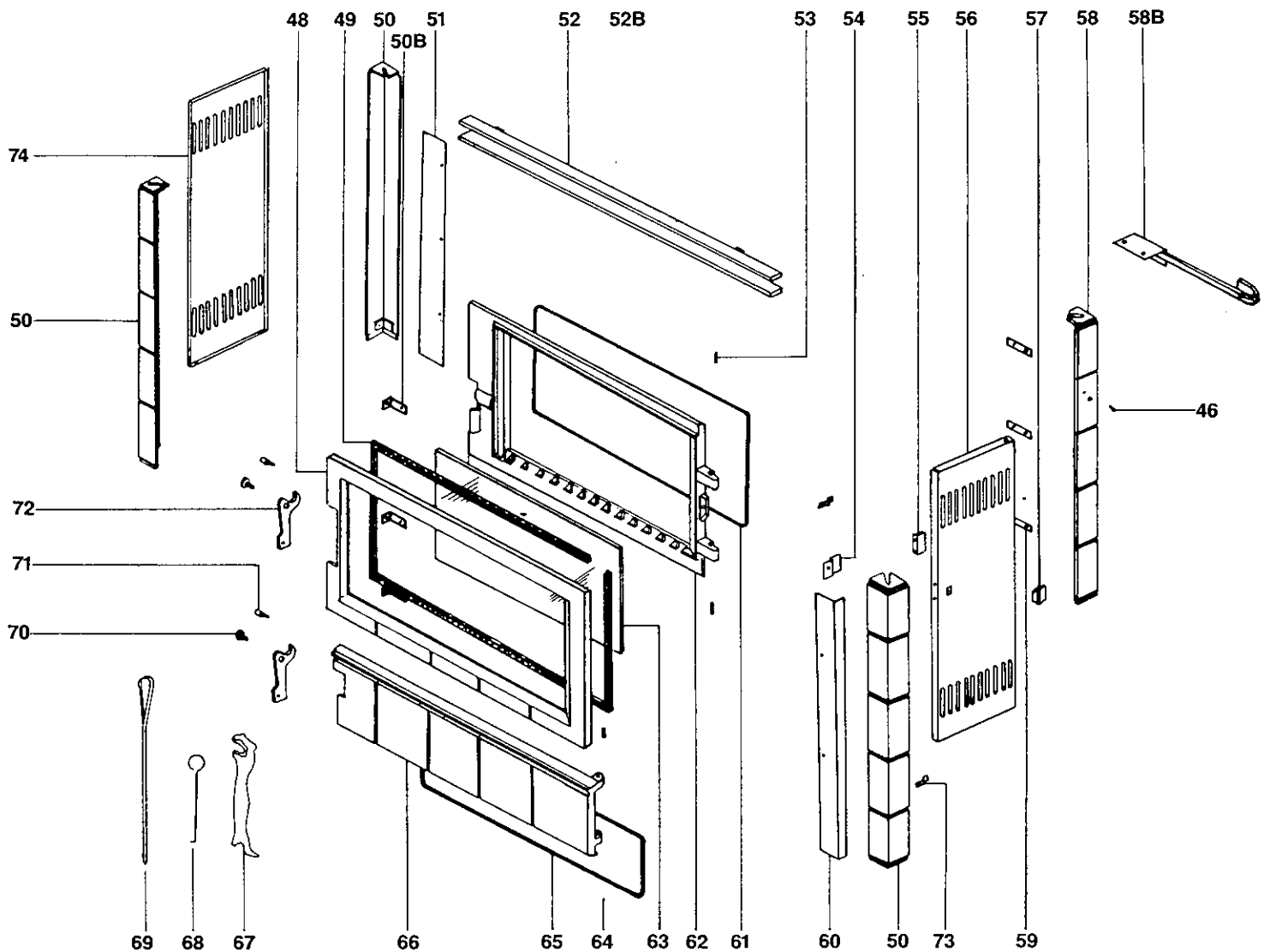


Figure 1: Exploded View

1. General Information

The Jøtul 466 coal and woodstove is made of steel and cast iron. It incorporates the expertise gathered from over 100 years of stove manufacturing. Features such as the coal hopper, enameled heat exchanger, and thermostat have been refined over the years to obtain maximum fuel efficiency and years of trouble-free operation.

To obatain the maximum benefits from your new stove and keep your family safe, as well as warm, READ THIS ENTIRE MANUAL CAREFULLY BEFORE INSTALLING YOUR STOVE. FAILURE TO DO SO MAY RESULT IN DAMAGE TO PERSONS AND PROPERTY.

When installing, operating, and maintaining your Jøtul stove, follow the guidelines given in these instructions. Save these instructions and keep them so that they are always available to anyone using the stove.

Several areas of the country require a building permit to install a solid fuel burning appliance. The National Fire Protection Association's Code 211 or similar regulations may apply to the installation of solid fuel burning appliances in your area. Your dealer has been specially selected for his knowledge of your local codes and can provide assistance in making sure your installation is safe and legal. You may also contact your insurance representative, building, or fire officials to determine what regulations apply in your area.

2. Hazards Connected to the Use of the Jøtul 466

Any use of fire in the house represents a certain danger and with intense overfiring, temperatures on the surface of the Jøtul stove can exceed 1000°F (536°C).

Please comply with the following warnings.

- Never overfire the stove. If any part of it glows, you are overfiring, and serious damage to the stove or a chimney fire could result. Immediately close the doors and draft if you notice this condition.
- Never modify the Jøtul stove in any way which is not in accordance with the manufacturer's specifications.
- Never operate your Jøtul stove with the doors open, except for normal tending of the fire.
- Teach children that the stove is hot and should not be touched.
- Never burn trash of any kind in the stove.
- Do not dry clothes over the stove, they could fall and ignite.
- Keep loose flammable materials at least 48 inches away from the stove.
- Never use the stove if there are combustible gases in the house. A few examples of combustible gases are the fumes from certain cleaning fluids, adhesives, and paints.
- Always wear protective gloves when adding fuel to the fire and riddling the ash.
- Allow the poker to cool in a safe place after riddling the ash.
- Use only premium grade anthracite coal or seasoned wood in your Jøtul stove. Never use synthetic logs or fireplace coal.
- Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids far away from the heater while it is in use.
- Never operate the Jøtul stove with cracked or broken glass. Replace damaged glass with ceramic glass 4mm in thickness (available from your dealer).
- Avoid creating a low pressure condition in the room where the stove is operating. Operating an exhaust fan or a clothes dryer could create a low pressure area, causing poisonous gases to come out of the stove into the room. You can prevent a low pressure condition by providing adequate outside combustion air within 24 inches of the stove.
- This stove is not approved for use in mobile homes.

3. Installation

For your safety, follow these installation instructions. Consult local building or fire officials about restrictions and installation inspection in your area. If the stove is not properly installed, a house fire may result. Refer to the chimney and chimney connector manufacturer's instructions and local building codes for installation through combustible walls or ceilings. You should also notify your insurance company that you will be installing a stove in your home.

Location

The Jøtul 466 heats by radiating heat directly through the large glass door and convecting warm air between the sides and rear of the stove. This heat spreads out evenly and then rises.

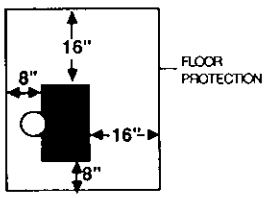
In general, the more centrally the 466 is located in the home, the better it will do in meeting your heating needs. Traffic patterns in the home will also influence the location of your stove. It is very important to provide adequate protection to combustible materials in the vicinity of the stove. Study the following sections on floor and wall protection to see how much space safe installation of the

466 will require. Prepare any necessary floor and wall protection and then locate the 466 as close as possible to its final position before removing the packaging. The 466 weighs 367 pounds, and you should not attempt to move it without adequate help.

Floor Protection

Combustible floors beneath wood and coal stoves must be protected from heat and any spark or ember which may fall out of an open door.

Figure 2:
Floor Protection Diagram



Minimum Floor Protection
⅜" mineral board

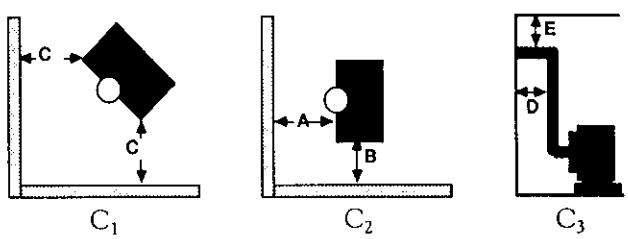
The combustible floor protector must be ⅜" mineral board, its equivalent or better. The floor protection must extend 8 inches beyond the left side and rear of the stove and 16 inches beyond the front and right side of the stove. The floor beneath the stove pipe must also be protected. Floor protection under the pipe must be 2 inches wider than the pipe for horizontal runs and 8 inches beyond the pipe for vertical runs. Figure 2 gives floor protection requirements.

Wall Protection

Safe clearances to combustible walls and ceilings must be maintained from both the stove and stove pipe (technically called the chimney connector). Study figure 3, Clearances to Combustibles, to determine the distance to maintain from combustibles for your planned installations.

In many installations, these clearances can be further reduced by using wall protection. You can construct your own wall protector by following the guidelines given in the National Fire Protection Association's code 211 — Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances 1984, Table 8-7 (b). Your dealer can help you obtain this information.

Figure 3: 466 Clearances to Combustibles



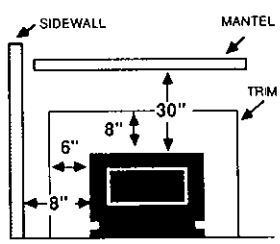


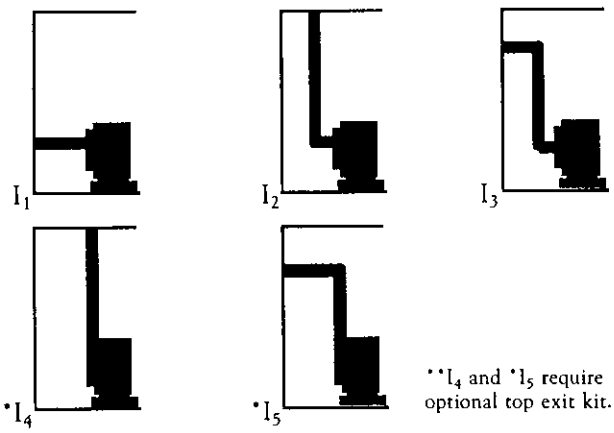
Figure 4:
Clearance to Fireplace Mantel and Trim

The Chimney and Its Connection

The Jøtul 466 must be connected to a tile-lined masonry chimney for residential type appliances, or an Underwriter's Laboratories, Inc. listed building heating appliance chimney, 6" in diameter. An existing masonry chimney should be inspected and, if necessary, repaired by a competent mason. Chimneys with openings measuring larger than 8" x 8" should be lined with 6" diameter stainless steel pipe, series 300 or 400. The chimney should be of a suitable height (approximately 15 ft.) to provide an operating draft in the range of .03 to .05 inches W.C. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

The chimney connector, or pipe, which is used to connect the stove to the chimney, should be 24 gauge blue steel, its equivalent or better. Each joint of the pipe should be sealed with furnace cement and secured with three sheet metal screws per joint. Horizontal pipe runs should have 1" of rise per foot of run. Optimum draft performance can be obtained by installing a barometric damper set at .035 inches W.C.

Installation Diagrams



**I4 and *I5 require optional top exit kit.

Clearances to Combustibles using 24 gauge single wall connector pipe

	Installation				
	I_1	I_2	I_3	I_4	I_5
A	12"	24"	24"	18"	18"
B	8"	8"	8"	8"	8"
C	12"	12"	12"	12"	12"
D	18"	18"	18"	18"	18"
E	18"	18"	18"	18"	18"

Fireplace flues larger than 8" x 8" should be relined with 6" diameter liners.

The thimble for a masonry chimney should be permanently cemented in place with high temperature refractory cement and extended through the chimney wall to the inner face of the liner, but not beyond. If possible, the stove pipe should extend into the thimble so that the end of the stove pipe is flush with the inner end of the thimble. The chimney connector shall not pass through any floor, wall, or ceiling, nor through a fire wall partition. Other safe methods of passing a connector through a wall are available. If you have any doubts about the safety or type of chimney connection, consult either your dealer, local building inspector, or fire official.

4. Operation

BEFORE BUILDING A FIRE PLEASE READ THE FOLLOWING SECTION CAREFULLY. NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS FAR AWAY FROM THE HEATER WHILE IT IS IN USE.

Fuel

Use only seasoned wood or premium grade anthracite pea-sized coal for fuel. Premium grade anthracite usually has approximately 8% to 10% ash content, a fixed carbon content of approximately 86% to 88%, and approximately 4% volatile combustible matter. The best type of anthracite would be one with a higher volatile combustible matter percentage coupled with a reduction of ash content with at least an 86% fixed carbon content.

The ash fusion point (the temperature at which "clinkers" are formed because of coal ash being fused) of a high grade of anthracite will be in the area of 2,800°F to 3,000°F, and the BTU output should be approximately 13,500 to 14,500 BTU's per pound.

If larger CHESTNUT or smaller BUCKWHEAT coal is used, a negative change in stove performance can be expected. Chestnut-sized coal will give you a hotter fire and a noticeable decrease in unattended burn time. (The faster your coal burns, the more often you need to shake down ashes due to accelerated ash buildup).

It is a normal misconception that larger size coal produces more heat as compared to an equal volume of smaller calibur coal. A load of chestnut-sized coal will burn hotter only because there is more fuel being consumed at a faster than normal rate. This is primarily due to the increased air spaces or pockets that are created by the larger chucks of coal as they stack up on the grate of your stove, thus encouraging faster than normal airflow and combustion. The BTU output of a pound of chestnut-sized coal is the same as a pound of pea-sized coal of equal quality.

Wood and Coal Storage

When storing wood outside, it should be covered from the elements and stored off the ground. Make certain that the woodpile has good air circulation through it in order to promote drying to aid in the seasoning process.

To obtain the most benefit from the wood you burn, use only seasoned wood which has been cut and split for at least one year. Burning unseasoned or wet wood causes the rapid development of creosote, while reducing the heat value of the wood being burned.

When coal is stored outside, it should also be covered from the elements. If the coal is wet and the temperature drops, it can freeze into a solid mass. Pieces of ice could become mixed with coal and possibly damage the stove.

Creosote and Soot Formation and the Need for Removal

When wood or coal is burned slowly they produce tar and other organic vapors which combine with expelled moisture and unburned particles to form creosote or soot. These materials can condense in the relatively cool chimney flue of a slow-burning fire. The creosote or soot that accumulates in the flue is highly flammable and is the fuel of chimney fires. The material needs to be removed by sweeping the chimney flue and connector. The frequency of sweeping will depend on how you operate your stove and your fuel, but it is important to inspect the flue after every two weeks of use. An accumulation of ¼" or more on the sides of the flue or connector is considered hazardous and should be removed.

In the event that creosote in your chimney or flue connector ignites, the resulting fire is often accompanied by a roaring noise and a crackling sound as flakes of burned creosote break loose. If you suspect you are having a chimney fire, immediately close the draft regulator and make sure the door and ash door are closed. Call the fire department.

Trying to extinguish the fire in the stove will not help; in fact, it can make matters worse by allowing oxygen through the door, which then supports the fire in the chimney. When the roaring and crackling has stopped, resist the temptation to open the door and look at the fire. The fire may have suffocated but could rekindle when you open the door. After a chimney fire, do not use your stove until the chimney and the flue connector have been cleaned and inspected to insure that no damage has been sustained.

Breaking in Your Stove

A cast iron stove should be "broken in" much in the same way a new car with a cast iron engine is: gradually. It is mandatory that five consecutive small coal fires be built in the stove prior to using it continuously with the hopper fully loaded. The five "firings" are successive small coal fires being built with a complete cooling off of the stove after the fire dies down. It is not acceptable to build a small fire and keep it going for 2-3 days on a low stove setting. The stove must be cooled off completely after a firing in order to properly heat treat all the metal parts on the stove.

NOTE: You should never bring the stove from very cold temperatures into your home and build a fire in it immediately. The stove should be allowed to properly warm up to room temperature (50-60°F) before firing it up for the first time.

Hopper Adjustment and Removal

The hopper height is adjustable and allows different size fuels to be used. Pea size anthracite is the recommended fuel. The lower hopper position is for pea size anthracite. If pea size anthracite is not available, the upper hopper position can be used for nut size anthracite. See figure 5.

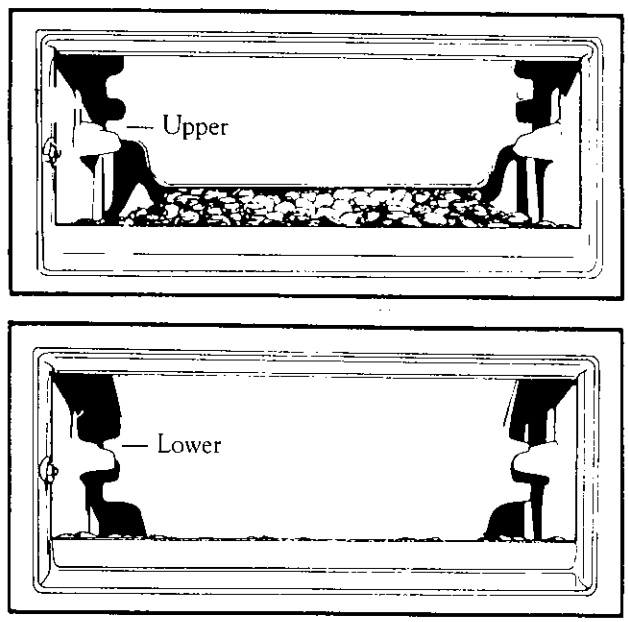


Figure 5: Hopper Levels

will preheat your coals and clear the combustion chamber of smoke and gases. Whenever you open a door on the stove, whether to check on the fire's condition or to add fuel, you should follow this procedure. Under certain conditions, high concentrations of unburned gases could be in the stove, and rapidly opening a door could cause these gases to ignite with explosive force.

After adding the new wood, allow the stove to operate at a high setting for 15 to 20 minutes before resetting the thermostat. A short, hot fire immediately after loading drives moisture from the wood and allows sufficient heat up the flue to prevent condensation. Following this practice will keep creosote formation to a minimum.

5. Maintenance

Glass Cleaning

Do not attempt to clean the glass when it is hot. Allow it to cool and wipe with a cloth and a vinegar water solution. Do not scrape the glass with anything or use any abrasive materials. Scratches made in the glass can later develop into cracks. Replace cracked or broken glass with 4mm ceramic replacement glass from your dealer.

Summer Storage

At the end of the heating season the flue, pipe, and stove must be thoroughly cleaned to prevent rust and corrosion from the acidic coal ash.

1. Remove the stove pipe and take the entire assembly outside. If you have a barometric damper, be careful not to disturb the balance weight. Wash and brush the inside of the pipe until it shines. After the pipe has dried, coat the inside with a solution made from 1 lb. of baking soda to 1 gallon of water. Reassemble the pipe, sealing the joints and set it aside until the stove is cleaned.
2. Remove the hopper and grates and clean thoroughly with a wire brush.
3. The heat exchanger is cleaned through trap doors on either side of the exchanger. To access the heat exchanger trap doors, unscrew the cover plates on the heat shield which are directly in front of the trap doors. Remove the trap doors and vacuum the heat exchanger.
4. Reassemble the stove and traps. Oil the hinge pins and door latches.
5. Replace worn out gaskets. Loose gaskets can be re-attached with gasket cement.
6. Leave the stovepipe disconnected during the summer. With the pipe connected moist air is continuously pulled through the stove and can cause it to rust.