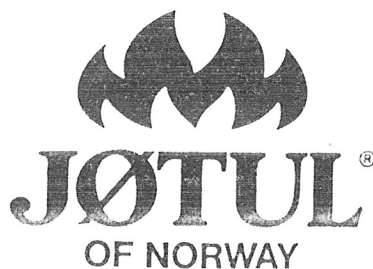


# **Installation and operating instructions for Jøtul coal stove no. 507 B**

**This installation and operating  
instructions are divided in 5 parts:**

- 1. General information**
- 2. Hazards connected with the  
use of closed room heaters**
- 3. Installation**
- 4. Operation of the stove**
- 5. Sweeping and maintenance.**



Aksjeselskapet Jøtul

## 1. GENERAL INSTRUCTIONS

- 1.1. Jøtul's Coal Stove no 507 B is a cast iron heater, designed for use of coal or wood as fuel.
- 1.2. The unit operates according to the vertical combustion principle and has a turnable built-in grate in the bottom of the combustion chamber. The fuel is burning on top of the grate and as the fuel is consumed, new fuel is added by gravity to the combustion zone. The ashes fall down through the grate and into the ash drawer.
- 1.3. The unit has three doors. Fresh fuel is added to the unit through the upper door. The unit is ignited and the grate is cleaned through the middle door. Ashes are removed by the ash drawer which is positioned behind the lower door. The two upper doors are operated by the loose handle which also is used for cranking the grate and removing the ash pan.
- 1.4. The unit has two air inlet valves, one in the lower door and one in the upper door. Primary combustion air is fed to the combustion chamber through the lower air valve. Secondary air is added through the upper valve.
- 1.5. It is important that the unit is used according to these instructions, and that the unit is operated at low heat output until some operational experience has been gained before running it at higher performance. Inexperienced operation at high power may lead to blistering and cracking of the enamel.
- 1.6. When installing, operating and maintaining this heater, please follow the guide-lines given in these instructions. Save these instructions and keep them so that they are always available for everybody using the heater.

## 2. HAZARDS CONNECTED WITH THE USE OF CLOSED ROOM HEATERS

- 2.1. Any use of fire, also in connection with closed room heaters represents a certain danger.
- 2.2. With intense firing, the temperature of the cast iron can exceed 500°C (932°F). The following factors must always be considered.
  - a. The heater should not be installed in parts of the room where there is a lot of traffic.
  - b. Loose inflammable material must be kept a safe distance from the heater, i.e. minimum 90 cm (36").
  - c. Children must be taught that the heater is hot and must not be touched.
  - d. Clothes must not be dried over the heater. They can fall down and be ignited.
  - e. The heater must be installed according to the instructions given by Jøtul Inc.
  - f. The heater must be used and maintained in accordance with these instructions.
- 2.3. Never use the heater if there are combustible gases in the room.
- 2.4. Provide a source of fresh air into room. Poisonous gases can come out into the room if for example the ventilation system creates a low pressure in the room where the heater is placed.
- 2.5. Make sure that sparks and embers don't get out of the heater when the doors are opened.
- 2.6. Be aware that even if the ashes look cold, there might still be some burning embers left. Avoid placing the ashes close to combustible materials before you are positive that all burning embers are out.

- 2.7. Do not use the heater with open doors. The heater can then be overheated.
- 2.8. The heater, chimney connector and chimney must be inspected and cleaned frequently.
- 2.9. Creosote — Formation and Need for Removal.

When wood or coal is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slowburning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire. The risk of creosote formation is larger with wood than with coal. **The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote buildup has occurred.**

If creosote has accumulated it should be removed to reduce the risk of a chimney fire.
- 2.10. Utilize coal and wood as the only fuels, and never liquid fuels.

Liquid fuel utilized in a heater for solid fuel can result in an explosion and fire.

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 well away from the heater while it is in use.

Never use or store flammable liquids, especially gasoline in the vicinity of the heater.

## 3. INSTALLATION

Please follow these installation instructions carefully. Check and execute each step before you proceed.

- 3.1. Check the local rules.

All installations of Jøtul's coal stove no 507 B must be according to the local regulations and as stated in these instructions. Also refer to NFPA publication no. 211 for Chimneys, Fireplaces and Vents, 1977.

For further information on using your heater safely, please obtain a copy of the National Fire Protection Association publication "Using coal and wood stoves safely", NFPA No. HS-10-1978. The address of the NFPA is:

NFPA  
470 Atlantic Avenue  
Boston, MA 02210.
- 3.2. Inspect your chimney.

The heater can be connected to masonry chimneys for residential type appliances, or Underwriters Laboratories Inc. Listed factory built chimney for residential type and building heating appliances. Single wall metal chimneys shall not be used inside 1- and 2-family dwellings. The inside dimension of a square masonry chimney should be minimum 6 by 6 inches. For a circular listed insulated chimney a diameter of 6 inches is recommended. The minimum height of the chimney should be 10 feet.

**NOTE: Do not connect this unit to a chimney flue serving another appliance.**
- 3.3. Determine where you want to install the heater.

The heater can be installed in different ways, but the installation must be in accordance with the UL-listing. Fig 1 shows the listed installations and the clearances that can be used.

- 3.4. Make a floor protector.  
The heater shall be placed on a non-combustible floor protector of 3/8 inch minimum thick of asbestos mill-board or equivalent.

The floor protector shall extend at least 16 inches in front, and at least 8 inches to each side of and 14 inches in back of the heater. See fig. 1.

If the floor projection of the chimney connector is extending beyond the sides or back of the heater, the floor protector should be expanded in that direction in its full width to cover the floor at least 2 in. beyond the projected area.

The floor protector should cover the floor in this direction just up the wall.

The floor protector may be placed on the sub or finish flooring, whether the flooring is combustible or not.

The floor protector shall be readily distinguishable from the surrounding floor.

- 3.5. Assemble the heater (Item no refers to part list).

The heater is delivered in one package which contains:

1. Unit 507 B with loose top lid and loose turnable grate.
2. Ash drawer (In space behind ash door). Item no.21.
3. Combined crank/loose handle for operation of turnable grate, door mechanisms and ash drawer. Item no. 43.
4. Increaser 126—154 mm for 6" flue pipe adaption. Item no. 44.
5. Plastic bag with plastic knob for the lower door handle and wooden knob for crank, with screws.
6. These instructions. Cat. no. 12 54 08.
7. Cast iron plaque.

Note: The unit contains loose parts which may fall out and damage other parts if the unit is tilted. Please remove the top lid and the turnable grate.

Place the unit on the floor protector according to the clearances given in fig. 1. Be certain that the turnable grate is positioned so that the gear faces down and that the top lid is properly replaced when the unit is in position. The crank (3) can be permanently stored on the turnable grate shaft which protrudes centrally between the two lower doors at the front of the heater. The ash drawer is placed in the space behind the ash door.

- 3.6. Install the chimney connector.

With the heater in place, you can now determine the path of the chimney connector. The connector shall be used to connect the heater to the chimney. The connector shall be made of noncombustible corrosion resistant material such as steel or refractory masonry. If a steel connector is to be used, it should be 24 gauge or thicker, black or blued steel pipe. A connector shall be as short and straight as possible.

A 6" chimney connector should be used. The heater is delivered with a 5"—6" adapter which is to be attached to the smoke outlet.

The adapter is secured to the smoke outlet by two 6 mm screws which are delivered with the heater.

A connector to a masonry chimney shall extend through the wall to the inner face or liner, but not beyond, and shall be firmly cemented to masonry. A thimble must be used to facilitate removal of the chimney connector for cleaning, in which case the thimble shall be permanently cemented in place with

the crimped end towards the heater to allow any condensate to drain into the heater. Secure each joint with 3 sheet metal screws.

A chimney connector shall not pass through any floor or ceiling, nor through a fire wall or fire partition. Install the factory built chimney in accordance with the chimney manufacturer's instructions.

- 3.7. Before building a fire.

With the chimney connector properly secured to the smoke outlet, your Jotul coal stove no 507 B is ready for use. Please read the following section carefully upon using the heater.

#### 4. OPERATION OF THE ROOM HEATER

**NOTE:** Don't ever let the unit burn with open doors or open the vents too much as the combustion then might be too intense and the unit might be damaged. Enamelled heaters must not be fired to the extent that they assume a red glow. The enamel may then be damaged.

- 4.1. This unit can burn various qualities of coal, such as bituminous or anthracite. It can also burn wood. Please be certain that the wood has been seasoned for at least 4—6 months before being burned.

- 4.2. When used with bituminous coals:

A. Kindle the unit with paper and some small size wood with the bottom vent setting at full open, and then after the wood has been ignited, add a layer of coal. When the coals have caught fire, add more coal until the unit is filled. When you are certain that the unit is burning, turn the bottom vent down to 2/3 turns to 1 1/3 turns depending on draft, and let the unit burn for at least 1 hour before adjusting the setting to the position which satisfy your heat requirements. During this period, you should continually observe the unit and be certain that it does not assume a red glow. The enamel will be damaged if operating under such conditions.

B. Bituminous coal will require primary air from the vent in the ash door as well as secondary air from the vent in the feed door at the top of the unit. Adjust the secondary air vent to reach a complete combustion of the gases.

- 4.3. When used with anthracite:

A. Kindle with paper and some small size wood and then after the wood has been ignited add a small layer of fuel. Add more after the fuel bed is ignited.

B. Anthracite requires a good draft through the vent in the bottom ash door. In addition to this, secondary air has to be added through the vent in the top door to reach a complete combustion of the gases. The vents are adjusted until you get the heat you need and with a clean combustion.

C. When using the 507 B with anthracite coal, the use of a barometric damper is permitted. Barometric dampers used in conjunction with coal burning units shall comply with the requirements for draft equipment, Standard UL 378.

- 4.4. When used with wood

A. Kindle with paper and some small size wood and add the amount of wood you need.

B. The draft is regulated by the vent in the lower door. The vent in the top feed door must always be opened slightly for addition of secondary air.

JØTUL COAL STOVE NO 507 B								
CLEARANCES:								
FROM	Heater							
TO		X	30"	30"		X	30"	30"
		A	30"	30"		A	30"	30"
FROM	Chimney connector							
TO		Y	18"	18"		Y	18"	18"
		Z	18"			Z	18"	
SIZE OF FLOOR PROTECTOR								
The floor protector should be made of 3/8" asbestos millboard or equivalent								
	L1	8"	8"		8"	8"		
	L2	8"	8"		8"	8"		
	L3	16"	16"		16"	16"		
	L4	to wall	2"		to wall	2"		
Total width		29,5"	29,5"		29,5"	29,5"		
Total length		59"	43"		78"	43"		

FIG. 1. CLEARANCES AND FLOOR PROTECTOR SIZE

- 4.5. General  
The vent opening which is needed to have the unit burn overnight is found by your own experience and is dependent on your installation and draft conditions. The ashes are shaken every morning and evening. The ash drawer is emptied once every 24 hours. On very cold days when the unit is operating at high power, it might be necessary to empty the drawer every 12 hours to prevent ashes from building up to the turnable grate. This might lead to excessive temperatures and damaging of the grate. Do not leave the unit burning with any doors open. This will lead to overheating.
- 4.6. During the first few times you use a new heater, the heater may become somewhat damp. In order to prevent this condensate from running down the face of the heater, open the door slightly during the first firing. As soon as the heater is warm, this condensate will evaporate and the door may be closed. On enamelled heaters, the condensate should be wiped off immediately as it may permanently stain or pit the surface.

## 5. SWEEPING AND MAINTENANCE

- 5.1. When wood and coal burns, soot and creosote may develop and could, together with incombustible particles settle in the chimney and the chimney connector. If this deposit increases, it will be necessary to have it removed. This ought to be done by sweeping the chimney and chimney connector regularly. How often depends on the use of the heater. As a rule, the chimney and the chimney connector should be swept at least once a year. If the chimney and the chimney connector are not swept regularly, a chimney should be inspected by professionals before it is taken into use again.
- 5.2. The room heater may burn "continuously" (day and night) even on small loads. Should pitch develop during such continuous burning, the heater should be fired intensely at regular intervals. This repeated a few days in succession will burn away possible pitch.
- 5.3. To give the maximum amount of heat, the heater and the chimney connector should be swept regularly. Figure 2 illustrates how the heater should be swept. By removing the top lid and opening all doors

sweeping can easily be carried out everywhere in the heater. The front grate behind the middle door can be removed by using the crank as a handle.

It is vital for a proper functioning of the unit that the bottom grate is removed and cleaned. This should be checked each time before a fire is started. It is loose and will easily pass through the top door. Be certain that the grate is properly installed after cleaning, and that it turns easily when applying the crank.

When sweeping the chimney connector it may be convenient to disconnect the heater. The chimney connector must be cleaned in its full length to assure a safe removal of all soot and creosote which have condensed on the inner surfaces.

Be sure to install the chimney connector properly after sweeping and secure it with the screws.

### 5.4. Disposal of ashes.

Ashes are removed by using the ash pan which is located in the space behind the ash door. Open the ash door with the loose handle and use the same handle for removing the ash pan. Do not leave the ash door open when the unit is burning.

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

### 5.5. Maintenance

We recommend that you inspect your heater whenever sweeping is performed. Check all visible leaks and check the gasket in the doors and on the top lid. Loose gaskets may be fixed by applying some water glass (sodium silicate) in the slot.

When burning the unit for long periods at a high power, the front grate behind the middle door might become damaged after a period of time. If this part is difficult to remove, or is stuck, it should be replaced by a new one, which can be obtained through your dealer. (Cat. no. 10 06 29). This part is a coal stove grate and the cost is not covered by your warranty.

If a mechanical failure is noticed, please contact your local dealer.

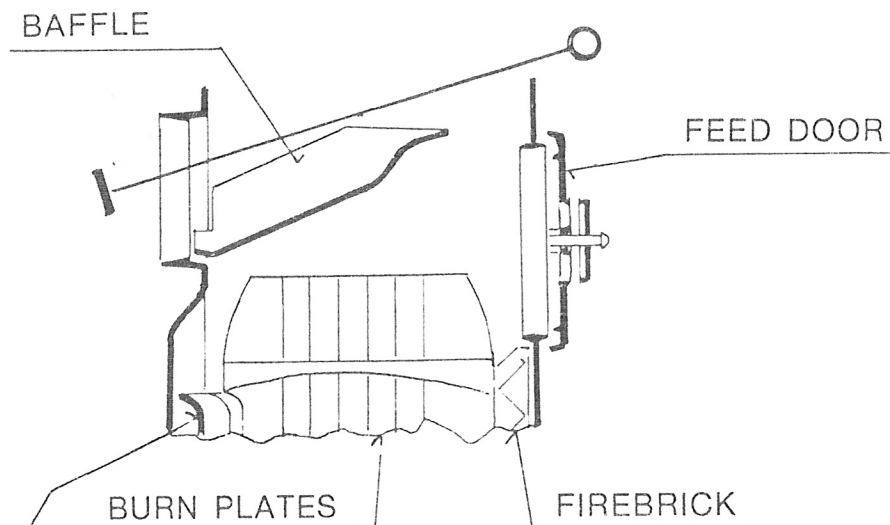


FIG. 2.