

# **Installation and operating instruction for Jøtul boxstove No. 121**

**This installation and operating instruction  
is divided into 5 parts:**

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



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## 1. GENERAL INFORMATION

- 1.1. Jøtul's boxstove 121 is a cast iron stove, designed for use of wood as fuel. Logs up to a length of appr. 60 cm (24") can be utilized, and it can be filled with appr. 18 kgs. (40 lb) of wood.
- 1.2. Jøtul's woodstove 121 has front combustion, i.e. the wood is ignited in front and burns slowly towards the rear, thus avoiding that all the wood will burn at the same time. The wood will burn longer and the stove will radiate an even heat.
- 1.3. When installing, operating and maintaining this stove, please follow the guide-lines given in these instructions. Save these instructions and keep them so that they always available for everybody using the stove.
- 1.4. This unit can be installed with Jøtul Listed 121 Heat Exchanger. However, side wall clearances and floor protector construction differ. If you plan to install a 121 Heat Exchanger now or later, the clearances and the floor protector construction for the Heat Exchanger should be used.

For installation of model 121 Heat Exchanger please refer to the instructions delivered with that unit.

## 2. HAZARDS CONNECTED TO THE USE OF CLOSED FIREPLACES

- 2.1. Any use of fire, also in connection with closed fireplaces, represent 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 stove should not be mounted in parts of the room where there is a lot of traffic.
  - b. Loose inflammable material must be kept in a safe distance from the stove, i.e. minimum 115 cm (45").
  - c. Children must be taught that the stove is hot and must not be touched.
  - d. Clothes must not be dried over the stove. They can fall down and be ignited.
  - e. The stove must be mounted in accordance with the local regulations, and according to the instructions given by Jøtul Inc.
  - f. The stove must be used and maintained in accordance with these instructions.
- 2.3. Never use the stove if there are combustible gases in the room.
- 2.4. Poisonous gases can come out into the room if for example the ventilation system creates a low pressure in the room where the stove is placed.
- 2.5. Make sure that sparks and embers don't get out of the stove when the door is 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 stove with an open door. The stove can then be overheated (see section 4.3).
- 2.8. The stove, chimney connector and chimney must be inspected and cleaned frequently, i.e. at least once an year.
- 2.9. Creosote - Formation and Need for Removal.  
When wood burns 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 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 wood as only fuel, and never liquid fuels. Liquid fuel utilized in a stove 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 stove.

## 3. INSTALLATION

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

- 3.1. Check the local rules.  
All installation of Jøtul's boxstove 121 must be according to the local regulations.  
If nothing else is stated, the stove should be installed according to the guide-lines given by the National Fire Protection Association in NFPA No. 89M. Heat producing appliance clearances 1976, and NFPA No. 211 Chimneys, Fireplaces and Vents 1977.  
For further information on using your heater safely, obtain a copy of the National Protection Association publication «USING COAL AND WOOD STOVES SAFELY», NFPA No. HS-8-1974.  
The address of the NFPA is 470 Atlantic Avenue, Boston, MA 02210.
- 3.2. Inspect your chimney.  
The stove can be connected to masonry chimneys for residential type appliances, or a listed metal chimney, Residential Type and Building Heating Appliance. 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 7 x 7 inch. For a circular listed insulated chimney a diameter of 7 inch. is recommended. The minimum height of the chimney should comply with the local rules.  
A wood stove cannot be installed to a chimney serving a gas/oil fired appliance. If the chimney is serving other woodburning appliances, check with the local building authorities that the chimney has sufficient excess capacity to serve your new wood stove properly.  
If the authorities do not accept this installation, your wood stove has to be connected to a separate chimney.
- 3.3. Determine where you want to install the stove.  
The stove can be installed in different ways, but the installation must be in accordance with the UL-listing. Only the installations shown are permissible. Alternate installations may produce excess temperatures. Do not change the clearances.  
Fig. 1 shows the listed installations and the clearances that can be used.
- 3.4. Make a floor protector.  
If the room heater is not intended to be installed with the Heat Exchanger at any time, the following floor protection construction should be used:  
The stove shall be placed on a floor protector not less than 3/8 inches thick of asbestos millboard or equivalent.  
The floor protector shall extend at least 16 inches in front, and at least 8 inches to each side of and beyond the back of the boxstove. See fig. 1.  
If the floor projection of the chimney connector is extending beyond the sides of the boxstove, the floor protector should be expanded in that direction in its full

JØTUL ROOM HEATER 121 WITH OR WITHOUT ONE JØTUL 121 HEAT EXCHANGER.

UL 1482-NBRK-RPT 3/27/79  
TYPE OF FUEL WOOD.

CLEARANCES		FROM HEATER		①+②		②		②		①+②		①	
		TO		X		A		Y		Z		①	
		HEATER		38"		38"		38"		38"		38"	
		CHIMNEY CONNECTOR		① - 44 3/4"		② - 50 3/4"		① - 30" ② - 23"		23"		① - 21 1/2" ② - 18"	
		TO		① - 21 1/2"		② - 18"		37"					
SIZE OF FLOOR PROTECTOR													
The floor protector should be made of 3/8" asbestos millboard or equivalent.													
L1		8"		17"		17"		8"		8"		8"	
L2		8"		8"		8"		8"		8"		8"	
L3		16"		16"		16"		16"		16"		16"	
L4		to wall		8"		2"		to wall		2"		2"	
Total width		35"		44"		44"		35"		35"		35"	
Total length		83"		61"		62"		83"		62"		62"	

Fig. 1. Clearances and Floor Protection Size.

- Footnotes: ① - Without Heat Exchanger.  
② - with Heat Exchanger.

width to cover the floor at least 2 inches beyond the projected area.

The floor protector should cover the floor in this direction just up to 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. Installation with 121 Heat Exchanger.

If the heater is intended to employ a Heat Exchanger at any time, a 22 gauge galvanized steel plate complying with dimensions given on figure 1 should be placed between the floor protector and the stove.

3.6. Assemble the stove.

Put the four legs on with screws and washers which are delivered with the stove. There is one leg in each corner of the stove.

Screw on the knob to the door.

Place your stove on the floor protector according to the clearances given in the previous section.

Screw on the ashplate under the door.

3.7. Install the chimney connector.

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

A 7" chimney connector should be used. Decide which smoke outlet to use. Remove the top plate and disconnect the proper smoke outlet cover. Screw on the smoke outlet and put the top plate back into position. The chimney connector is secured to the smoke outlet by two 6 mm screws which are delivered with the stove. A chimney connector shall not pass through any floor or ceiling, nor through a fire wall or fire partition.

3.8. Before building a fire.

With the chimney connector properly secured to the smoke outlet, your Jøtul stove No. 121 is ready for use. Please read the following section carefully upon using the stove.

#### 4. OPERATION OF THE STOVE

4.1. Use always wood as fuel. The wood should be air dried for at least 4 - 6 months.

Kindle some sticks at the front of the stove, then put in some full-length logs. At the beginning see that the draft is sufficient, and then regulate it down towards the combustion desired.

The fire will now slowly spread inwards. When the wood has turned to glowing, the air intake should be reduced. The wood then burns rather like coke or charcoal.

In place of constant rekindling, the stove should be kept continuously burning day and night on even larger logs. When the wood has burnt almost completely and only the necessary glows remain for continued burning, these are poked to the front using a poker. The stove is then refilled. The draft is increased, and then regulated down to the combustion desired.

4.2. Enamelled stoves must not be fired to the extent that they assume a red glow. The enamel may then be damaged.

4.3. During the first few times you use a new stove, the stove may become somewhat damp. In order to prevent this condensate from running down the face of the stove, open the door slightly during the first firing. As soon as the stove is warm, this condensate will evaporate and

the door may be closed. Never leave the stove unattended with the door open.

On enamelled stoves, this condensate should be wiped off IMMEDIATELY as is it may permanently stain or pit the surface.

#### 5. SWEEPING AND MAINTENANCE

5.1. When wood burns, soot and creosote may develop and could, together with other incombustible particles settle in the chimney and the chimney connectors. 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 stove. As a rule, the chimney and the chimney connector should be swept at least once a year.

If the chimney and the chimney connector is not swept regularly, a chimney fire may develop. A chimney which is built according to the regulations, or one which has prior approval will withstand a chimney fire. However, if a fire should erupt, the chimney should be inspected by professionals before it is taken into use again.

5.2. The stove may burn «continuously» (day and night), even on small loads. Should pitch develop during such continuous burning, the stove should be fired intensely with regular intervals.

This repeated a few days in succession will burn away possible pitch.

5.3. possible pitch.

To give the maximum amount of heat, the stove and the chimney connector should be swept regularly. Fig. 2 illustrates how the stove should be swept. By removing the top lid sweeping can easily be carried out everywhere in the stove.

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

After sweeping it is important to assure that the baffle and the burnplates are replaced as in figure 2. The burnplate increases the temperature during combustion and protects the side plates. The baffle guides the hot gases in such a way that maximum heat dissipation is attained. A bottle of black Senotherm is enclosed for unenamelled stoves. It may be used for patching up possible scratches in the varnish.

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

5.4. Disposal of ashes.

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well 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 surfaces for cracks. Inspect the joints for visible leaks, and check the gasket in the door and on the top lid. Loose gaskets may be fixed by applying some more water glass (sodium silicate) in the slot.

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

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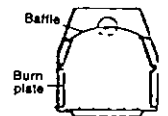
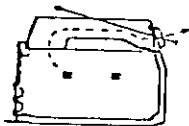


Fig. 2