

Jøtul 404 wood cook stove

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Installation and Operating Instructions

Installation et fonctionnement

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Safety notice: If this solid fuel room heater 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. Kindly save these instructions for future references.

Avis de sécurité: Une installation non appropriée de ce poêle de chauffage risque de provoquer un incendie. Assurez votre sécurité en respectant les directives d'installation suivantes. Consultez les autorités locales du bâtiment ou de la prévention des incendies au sujet des restrictions et exigences relatives aux inspections d'installations dans votre région

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SPECIFICATIONS

- Height - 31.5"
- Width - 24.8"
- Length -20.3"

- Log length - 12"

- 3 cooking surfaces when installed with rear flue exit.

- Oven size- 1,232 cubic inches

- Firebox size - 672 cubic inches

- Heating capacity 1500-2500 cubic feet

- Top or rear chimney connector collar.

- Flue pipe diameter 6" (with Jøtul flue collar adapter)

- Chimney connector center height, rear exit - 28.67"

- Chimney connector top exit 31.5"

- Color : Black enamel

- Separate settings for cooking or baking

- Optional heatshield available from Jøtul North America

STANDARDS

The 404 wood cook stove has been tested and listed to;

U.S. Standards: ANSI/UL 1482.

Canadian Standards: CAN/ULC-S627-M93

Tests performed by ITS Intertek Testing Services, Middleton, WI

Manufactured by : Jøtul A.S.A.
P.O. Box 135,
Fredrikstad, Norway

Distributed by: Jøtul North America
P.O. Box 1157
400 Riverside Street
Portland, ME 04104

This wood cook stove is exempt from U.S. Environment Protection Agency's Emissions limits for wood heaters manufactured and sold after July 1, 1990.

Due to its exempt status the 404 has not been tested to a specific BTU output.

**THIS UNIT IS NOT A ROOM HEATER.
USE ONLY AS A COOKING APPLIANCE .**

The Jøtul 404 wood cook stove is ONLY listed to burn WOOD. Do not burn any other fuels.

JØTUL 404 WOOD COOK STOVE

When installing, operating and maintaining your Jøtul 404 wood cook stove, follow the guidelines presented in these instructions, and make them available to anyone using or servicing the stove.

A number of areas require a building permit to install a solid fuel burning appliance. In the U.S., the National Fire Protection Association's Code, NFPA 211 *Standards for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*, or similar regulations, may apply to the installation of a solid fuel burning appliance in your area. In Canada, the guideline is established by the CSA Standard, CAN/CSA-B365-M93, *Installation Code for Solid-Fuel-Burning Appliances and Equipment*.

Always consult your local building inspector or authority having jurisdiction to determine what regulations apply in your area.

NOTICES

- Be sure to read this entire manual before you install or use your new Jøtul 404 wood cook stove.
- **IF THIS APPLIANCE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.**
- Jøtul recommends that you have your new Jøtul 404 cook stove installed by a professional installer of solid fuel burning appliances.
- **EXTREMELY HOT WHILE IN OPERATION! KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.**
- 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 low pressure conditions by providing adequate combustion air within 24" but not closer than 12" from the stove.
- Do not use chemicals or fluids to start the fire. Some fuels, will during combustion, separate carbon monoxide and generate it in the burn chamber. Carbon monoxide is toxic, so please follow the guidelines in this manual for proper operation of your 404 cook stove.
- If you for some reason experience smoke "roll-out" from the stove, it may activate smoke detectors if installed in the house.
- **DO NOT CONNECT THIS APPLIANCE TO ANY AIR DISTRIBUTION DUCT OR SYSTEM !**

INSTALLATION:

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

REMINDER

Your local officials have final authority in determining if a proposed installation is acceptable. Any requirement, that is requested by the local authority having jurisdiction, that is not specifically addressed in THIS manual, defaults to NFPA 211, in the U.S. or in Canada, CAN/CSA-B365-M and local codes.

ASSEMBLY

First: locate the leg set (part #: 100897) and leg hardware (4 sets of 6mm flat head machine screws and washers) packaged inside the stove.

Remove all accessories, the firebox grate(#100899), cook plates, the hot plate spacer (# 100890), the oven bottom (part# 123529), and the cleaning eye (part #100872).

Tilt the cook stove onto its back and attach the legs using 1 6mm flat head machine screw and 1 washer for each leg .

With some assistance (the stove weighs 223lb assembled), lift the stove upright onto its legs.

Do not tilt the stove up onto its legs as you may break the legs off with the excess shear weight. (tip; you can remove some of the weight from the stove by removing all of the doors. Do not lose the hinge pins or spacer washers (one washer per door)) .

Next: locate the firebox ashlip (part #: 100895) and loosen the two 6mm flat head bolts already set into the stove beneath the firebox door
Loosen the 6mm bolts and set the ashlip in place aligning the ashlip in between the ridges on the face of the casting. Carefully tighten the bolts.

Next: locate the oven rail (part # 120294) .
Align the rail with the two receiver holes on the front of the cook stove above the oven and firebox doors
Making sure that the 6mm flat head set screws have first been loosened push the rail into place and tighten the set screws to secure the rail.

TOP OR REAR EXIT FLUE

The 404 cook stove comes with a flue collar adapter (Part# : 124817) to allow for use of a 6" stovepipe connector. Attach the collar adapter using 6mm machine screw (included on the flue collar) to the cast flue collar before attaching the connector.

The 404 cook stove is shipped with the flue collar installed in the rear exit position. If a top exit position is desired remove the two 6mm flat head screws on either side of the flue collar and remove the flue collar from the stove. Then remove the two 6mm flat head screws from the top exit mending plate and remove the mending plate from the top of the stove . Replace the collar on the top collar position of the stove and place the mending plate on the rear collar location .
NOTE: If using the rear heat shield you must remove the rear exit cover plate from the shield in order to rear exit the pipe.

STOVE PIPE CHIMNEY CONNECTOR

The chimney connector is a single walled pipe used to connect the stove to the chimney. For use with the 404 cook stove the chimney connector **MUST** be 6" in diameter, with a minimum thickness of 24 gauge black steel.

Aluminum or Galvanized steel pipe is not acceptable for use with the 404 cook stove . These materials cannot withstand the extreme temperatures of a wood fire and can give off toxic fumes when heated.

Do not use the connector pipe as a chimney!

Each chimney connector or stove pipe section must be installed to the stove flue collar adapter, and to each other with the male or crimped end toward the stove.

SEE FIGURE 1

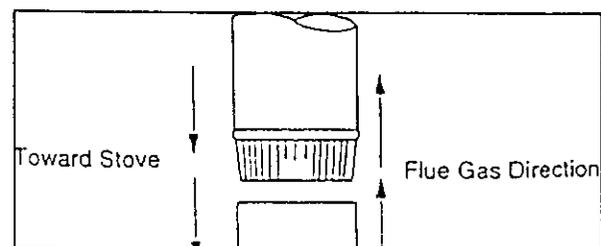


Figure 1

This prevents any amount of condensed or liquid creosote from running down the outside of the pipe or the stove top. All joints, including the flue collar connection must be secured with three sheet metal screws to ensure that the sections do not separate.

CHIMNEYS

There are two types of chimneys suitable for the 404 cookstove:

- 1) A CODE APPROVED CHIMNEY WITH A PROPER FLUE LINER.
- 2) A PREFABRICATED CHIMNEY MEETING THE REQUIREMENTS FOR TYPE HT (2100°F) CHIMNEYS PER UL 103 , or ULC S629.

The chimney size should not be less than the cross sectional area of the 6" flue collar adapter or more than three times greater than the cross-sectional area of the 6" flue collar adapter.

When selecting a chimney type and the location for the chimney in the house, keep this in mind: it is the chimney that makes the stove work, NOT the stove that makes the chimney work. This is because a chimney actually creates a suction, called draft, which pulls air through the stove.

Several factors affect draft: chimney height, cross-sectional area (size), and temperature of the chimney, as well as the proximity of surrounding trees or buildings.

As a result, a short masonry chimney on the exterior of a house will give the poorest performance. This is because it can be very difficult to warm the chimney thereby creating inadequate draft. In extremely cold northern areas it may be necessary to reline the chimney or extend its height to help establish draft.

Oppositely, a tall masonry chimney inside the house is easier to keep warm and will perform the best.

The following guidelines give the necessary chimney requirements based on the national code (ANSI-NFPA 211 for the US ,and CSA CAN-B365 for Canada)). However, many local codes differ from the national code to take into account climate, altitude, or other factors. It is important that you check with your local building officials to find out what codes apply in your area before installing your new 404 cookstove.

Remember: your local inspector(s) have the final authority in approving your installation. It is always best to consult them prior to the installation.

MASONRY CHIMNEYS

When installing the 404 cook stove into a masonry chimney you must conform to the following guidelines:

- The masonry chimney must have a fireclay liner or equivalent, with a minimum thickness of 5/8" and must be installed with refractory mortar. There must be at least 1/2" air space between the flue liner and chimney wall.
- The fireclay flue liner must have a nominal size of 8" X 8", and should not be larger than 8^{1/2}" X 12". If a round fireclay liner is to be used it must have a minimum inside diameter of 6" and not larger than 8" in diameter. If a chimney with larger dimensions is to be used, it should be relined with an appropriate liner that is code approved.
- The masonry wall of the chimney, if brick or modular block, must be a minimum of 4" nominal thickness. A mountain or rubble stone wall must be at least 12" thick.
- A newly-built chimney must conform to local codes and in their absence must recognize national regulations (see the NFPA 211 and CAN/CSA-B365).
- When using an existing chimney, it must be inspected by a professional licensed chimney sweep, fire official, or code officer, to ensure that the chimney is in proper working order.
- **No other appliance can be vented into the same flue as the 404 cook stove.**
- An airtight clean-out door should be located at the base of the chimney.

PREFABRICATED CHIMNEY SYSTEMS

If a prefabricated metal chimney is to be used it must be a chimney type that is tested and listed for use with solid fuel burning appliances. High Temperature (HT) Chimney Standard UL 103 for the U.S. and High Temperature Standard ULC S-629 for Canada.

The manufacturer's installation instructions must be followed precisely. Always maintain the proper clearance to combustibles as established by the pipe manufacturer. This clearance is usually a minimum

of 2"; although it may vary by manufacturer or for certain chimney components.

CHIMNEY HEIGHT

Whether a masonry chimney or prefabricated metal chimney is used it must be the required height above the roof line. The requirement is:

The chimney must be at least 3 feet higher than the highest point where it passes through the roof and at least 2 feet higher than the highest part of the roof or structure that is within 10 feet of the chimney, measured horizontally. **SEE FIGURE 2**

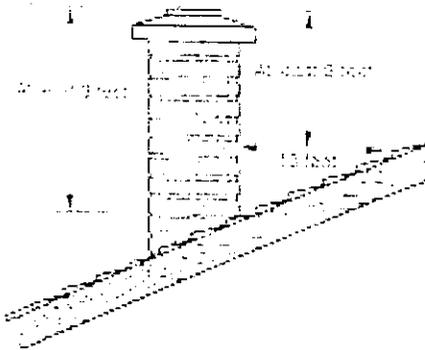


FIGURE 2

Chimneys shorter than 14 feet may not provide adequate draft. This could result in smoke spilling into the room from the stove when loading the stove, or when the door is open. In addition, inadequate draft can cause back puffing, which is a build up of gases inside the firebox.

Other times, chimney height can create excessive draft which can cause high stove temperatures and short burn times. Excessive drafts can be corrected by installing a barometric damper. If you suspect you have a draft problem, consult your dealer.

WALL PASS-THROUGHS

When your installation unavoidably requires the chimney connector to pass through a combustible wall to reach the chimney, always consult your local building officials, and be sure any materials to be used have been tested and listed for wall pass throughs.

In the US

The National Fire Protection Association's publication, NFPA 211 *Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*

permits four methods for passing through a combustible wall. Before proceeding with any method be sure to consult with your local building officials to discuss any local code requirements.

Common method:

When passing through a combustible wall to a masonry chimney this method requires the removal of all combustible materials from at least 12" around the chimney connectors proposed location. With a 6" round liner the minimum area required would be 31" x 31" square. **SEE FIGURE 3**

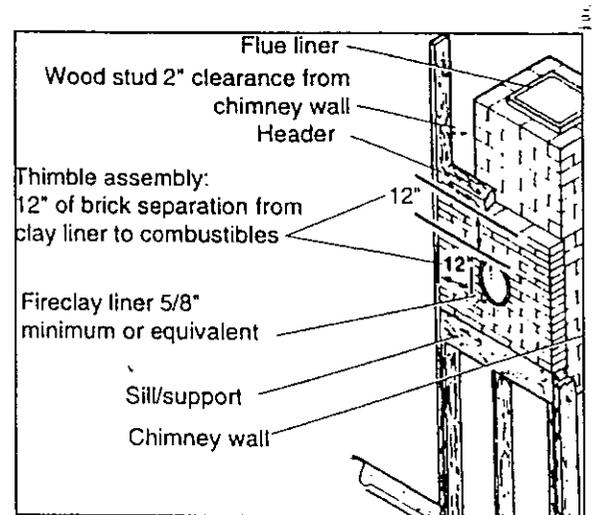


FIGURE 3

The space is then filled with at least 12" of brick around a fireclay liner. Remember, the liner must be ASTM C35 or equivalent, with a minimum wall thickness of 5/8".

It is important to remember to locate the pass through at least 18" from the ceiling for proper clearance to combustibles.

It will be necessary to cut wall studs, install headers, and construct a sill frame to maintain the proper dimensions and to support the weight of the brick.

The bricks must be solid brick with a minimum of 3 1/2" thick (4" nominal).

Refractory mortar must be used at the junction of the chimney and the pass through liner. The pass through liner must not penetrate the chimney liner beyond the inner surface of the chimney liner. Use extreme care when constructing the hole in the chimney liner, the tiles can shatter easily.

In Canada

In Canada the standard has been established by the

Canadian Standard Association. The installation must conform to CAN/CSA-B365, *Installation Code for Solid Fuel Burning Appliances and Equipment*. Before proceeding be sure to consult your local building inspector.

Common Method:

This method requires the removal of all combustible materials from at least 457mm around the chimney connector's proposed location. With a 153mm round liner the minimum area required would be 1093mm x 1093mm square .

It is important to remember to locate the pass through at least 458mm from the ceiling to maintain the proper clearance to combustibles.

The space that is cleared of combustible materials must then remain empty. Sheet metal panels can then be used to cover the area. However when using a panel on both sides of the wall each cover must be installed on noncombustible spacers at least 1" from the wall. If one panel of sheet metal is to be used it may be installed flush to the wall.

SEE SECTION 5.3.1 and 5.3.2 of CAN/CSA-B365-M91.

Consult your local building inspector, authorized Jøtul Dealer, NFPA 211 in the U.S. or CAN/CSA-B635 in Canada for other approved wall pass through methods.

CONNECTING TO THE CHIMNEY

Masonry Chimney

When installing a 404 cook stove into a masonry chimney through a "thimble" (the opening through the chimney wall to the flue), the thimble must be lined with ceramic tile or metal and be securely cemented in place. **SEE FIGURE 4**

The chimney connector/stove pipe must slide completely inside the thimble to the inner surface or the flue liner. It may be necessary to make use of a thimble sleeve (a pipe with a slightly smaller diameter than standard stove pipe), this special pipe can be easily installed into thimble.

Make sure the connector pipe or thimble sleeve does not protrude into the flue liner, thereby restricting the area the smoke has to flow through. This bottleneck will have a negative affect on the chimney system.

The chimney connector should be sealed at the thimble with refractory cement and the stove pipe leading to the stove should have a minimum of three screws.

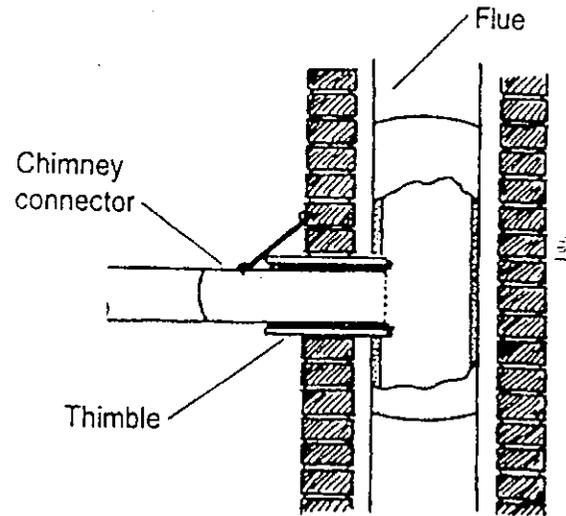


FIGURE 4

Hearth-mount into a Masonry Fireplace:

The 404 cook stove may be installed into a masonry fireplace provided the height of the opening is a minimum of 30" and that the mantle and trim clearances are adhered to. **SEE FIGURE 7**

When installing the 404 cook stove in front of a masonry fireplace code requires that the fireplace damper plate be removed or securely fixed in the open position. A connector pipe must then extend from the stove's flue exit through the damper area of the fireplace and into the chimney tile liner. The inside area of the flue liner must not be less than the area of the stove's flue exit, and cannot be more than three times greater than the cross sectional area of the stove's flue exit.

If the chimney liner is too large to accommodate the stove, an approved relining system must be installed to re-size the flue.

A new sheet metal damper block-off plate must be installed around the connector pipe at the damper frame and sealed with the proper sealant (usually High-Temp Silicone). **SEE FIGURE 5**

Fireplace installation must also observe the proper clearances to surrounding trim and mantels (see figure 7). In addition, fireplace installations must also adhere to the floor protection guidelines

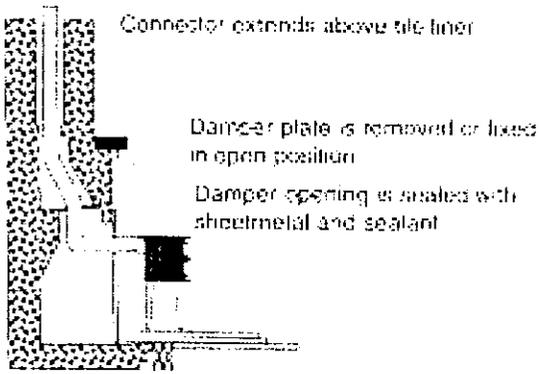


FIGURE 5

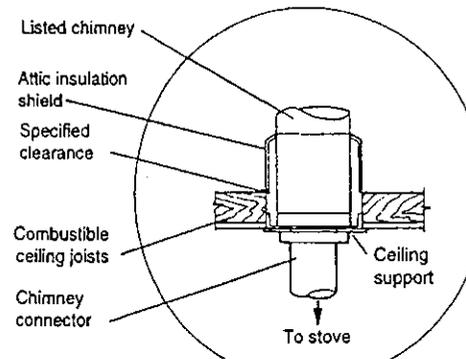


FIGURE 8

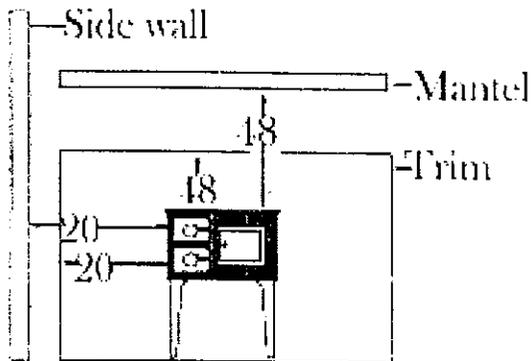


Figure 7

CLEARANCES TO COMBUSTIBLES.

Floor Protection in the US and Canada

Floor protection under the stove, must be constructed of a listed 3/8" thick noncombustible hearth pad material for protection from radiant heat, sparks, and embers. Individual sections of floor protection must be mortared together to prevent sparks from falling through to combustible materials. Any carpeting must be removed from under the floor protection.

For diagrams and details on making your own hearth protection see appendix A .

The 404 cookstove must be installed on a noncombustible surface extending a minimum of 18" in front of the stove (measured from the legs). And 8" on the left side and back of the stove (measured from side and back panels).

This will result in a minimum floor protection of 42"(1067mm) wide x 46" (1169mm) deep. (see appendix A for diagram)

In a rear vent installation the floor protection must also extend under the stove pipe a minimum of 2" (50mm) beyond either side of the pipe. (see appendix A for diagram)

Clearances to walls and ceilings (LISTED ON PAGES 13 and 14)

The clearances have been tested to UL and ULC standards and are the minimum clearances specifically established for the Jøtul 404 cookstove.

specified on page 15 and in appendix A.

PREFABRICATED CHIMNEYS

(see appendix B for example drawings)

When installing the 404 cook stove into a prefabricated metal chimney always follow the pipe manufacturer's instructions and be sure to use the components that are required. This usually includes some type of "smoke pipe adapter" that is secured to the bottom section of the metal chimney and allows the chimney pipe to be secured to it with three sheet metal screws. **SEE FIGURE 8**

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE OF ANY KIND.

The diagrams on pages 13 and 14 give the required

clearances you must maintain when installing the 404 cook stove near combustible surfaces. A combustible surface is anything that can burn (i.e. sheet rock, wall paper, wood, fabrics etc.). These surfaces are not limited to those that are visible and also include materials that are behind noncombustible materials. If you are not sure of the combustible nature of a material, consult your local fire officials.

Remember: **“Fire Resistant” materials are considered combustible**; they are difficult to ignite, but will burn. Also **“Fire-rated” sheet rock is also considered combustible**.

CONTACT YOUR LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION REQUIREMENTS IN YOUR AREA.

USING SHIELDS TO REDUCE CLEARANCES

Pipe shields

When using listed pipe shields to reduce the connector clearance to combustibles, it must start 1” above the lowest exposed point of the connect pipe and extend vertically a minimum of 25” above the top surface of the stove.

Double walled pipe

Listed double walled pipe is an acceptable alternative to connector pipe heat shields.

Wall mounted protection

In the U.S. refer to NFPA 211 *Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances*, for acceptable materials, proper sizing and construction guidelines.

In Canada, refer to CAN/CSA-B365 *Installation Code for Solid-Fuel Burning Appliances and Equipment*, also for acceptable materials, proper sizing and construction guidelines.

Stove Mounted Heat shield

A stove heat shield has been specifically designed for the 404 cook stove, no other stove-mounted heat shield may be used. In the U.S. and Canada the heat shield part # 154331 .

ALCOVE

See page 14 for alcove requirements.

MOBILE HOME INSTALLATIONS

THE 404 COOK STOVE HAS NOT BEEN APPROVED FOR USE IN MOBILE HOMES IN THE U.S OR CANADA.

As always consult with your local building inspector or fire officials about restrictions and requirements in your area, prior to installing the stove.

OPERATION

Before building a fire or breaking in your new 404 cookstove please read the following section carefully and completely.

This stove is designed to burn natural wood ONLY, wood that has been air-dried for a period of 6 to 14 months will provide the cleanest most efficient heat.

DO NOT BURN:

- Coal
- Treated or painted wood
- Garbage
- Chemical Chimney cleaners
- Cardboard
- Colored paper
- Solvents
- Any synthetic fuel or logs

The burning of any of these materials can result in the release of toxic fumes. Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or “freshen-up” the fire. Always keep such liquids away from the heater at all times.

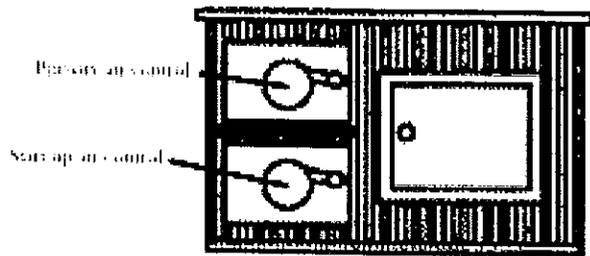
WARNING: ALWAYS OPERATE YOUR JØTUL 404 COOK STOVE WITH THE FRONT DOORS COMPLETELY CLOSED AND PROPERLY SECURED. PARTIALLY OPENED DOORS MAY RESULT IN OVER-FIRING. ALSO, IF DOORS ARE LEFT PARTLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE STOVE OPENING, CREATING RISKS FROM BOTH FIRE AND SMOKE.

BREAKING IN YOUR 404 COOKSTOVE

Your new 404 cook stove is constructed of cast iron, refractory brick, and stove furnace cement. This type of construction requires the stove to be “broken-in” gradually so that heat expansion does not come too quickly and cause damage. Complete the following steps for the proper break-in procedure for the 404 cookstove :

To monitor the stove’s temperature, Jøtul recommends the use of a magnetic stove- top thermometer, placed on the stove’s top surface above the firebox (left side).

1. Light a small fire, newspaper and kindling only, only allow the stove to reach a maximum surface temperature of 200° for approximately 1 hour.
2. Allow stove to cool to room temperature.
3. Light a second fire, only allowing the stove to reach a maximum surface temperature of 300° for 1 hour.
4. Cool the stove to room temperature.
5. Light a third fire and gradually allow stove to reach a surface temperature of 400° .
6. Cool stove to room temperature. This completes the “break-in” procedure.



Never allow the stove to exceed 400° surface temperature during any “break-in fire” with the exception of the last “break-in” fire.

Note: **IT IS NORMAL** for a new painted stove to emit an odor and even smoke during its first several fires. This is caused by the seasoning of the high temperature paint and will diminish with each fire and will eventually disappear. Opening a window or door to provide additional ventilation will reduce the odor as this process takes its course.

STARTING AND MAINTAINING A FIRE

Lighting a Fire:

First ensure that the oven control lever on the cook surface of the stove is set to “KOKE” (COOK).

Not setting the oven control properly on light up will result in smoke leakage into the house.

With the start-up air control dial in the full open position and the primary air control dial 1/2 open start with several sheets of crumpled newspaper placed directly on the grate. On top of the newspaper, place several pieces of small dry kindling (approx. 1” in diameter) with one or two larger logs (approx. 3” in diameter) on top.

Light the fire and close the door, slowly building the fire by adding logs as space allows. Be sure to follow the break-in procedure before creating a fire that will damage the stove.

Once the stove has reached a surface temperature range of between 400° to 600°, adjust the air control dial , by closing off the start-up air dial and then opening the primary air control dial to a setting which is greater than the primary air , to generate the heat output and burn time desired. Jøtul recommends the use of a magnetic stove top thermometer to monitor the surface temperature of the stove.

ADDING FUEL

When reloading the stove while it is still hot and a bed of hot embers still exist, follow this reloading procedure:

- Always wear gloves when tending to the stove.
- Push the primary air control dial to the full open position .
- Wait a few seconds before opening the door.
- Use a stove tool or poker to distribute the hot embers equally around the firebox.
- Load the fuel, usually with smaller logs first.
- Close the door, be sure to latch the door tightly.
- Wait 5 – 10 minutes before adjusting the primary air dial to the desired heat output settings. (If you have at least a 2” thick ember bed when reloading, it may be possible to close the door and immediately adjust the air control setting).

The Formation of Creosote:

When wood is burned slowly and at low temperatures, it produces tar and other organic vapors, which

combine with moisture to form creosote. The slow moving smoke carries the creosote vapors, which condense in the cooler chimney flues, and this creosote then sticks to the chimney walls.

The creosote that accumulates in the chimney is highly flammable and is the fuel of chimney fires. To prevent chimney fires it is important to have the chimney and chimney connector pipe inspected and/or cleaned semi-annually. A qualified chimney sweep or other authorized service person can provide this service.

It is also important to remember that chimney size, temperature and height all affect draft which in turn affects the formation of creosote. Be sure to follow the installation and operation guidelines established in this manual.

OPERATION OF THE COOK STOVE:

When only using the surface of the stove leave the oven control set to "KOKE" (cook).

Once the stove has reached operating temperature (400deg. -600deg.) you may engage the baking oven.

Adjust the oven control on the right hand of the stove top surface to the "steke" (bake) setting (to the left). This will allow the flue gasses to be redirected around the oven and thus to heat the oven to a baking temperature. Place a magnetic stovetop thermometer on the face of the stove just above the oven door. This will give you a reasonable (but not perfect) reading of the oven temperature.

The Jøtul 404 cook stove does not come equipped with an oven thermometer.

Note: there are thermometers manufactured which can be placed inside an oven to give a more accurate reading of the oven temperature. See your hearth dealer or cooking supply store for more details.

When you have reached the desired oven temperature you are ready to bake.

Be sure to monitor the fire in order to maintain a proper, steady, oven temperature.

MAINTENANCE

Ash Removal:

Ash removal from the firebox will be required periodically depending on how frequently the stove is used.

The ashes should be placed in a metal container equipped with a tight sealing lid. The container 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.

General Maintenance:

Like your car, regular maintenance prolongs the life of your appliance. The following procedures do not take long and are generally inexpensive, but when done consistently, increase the life of your appliance and in turn, increase your years of enjoyment.

At least once a year you should perform the following maintenance procedures:

- First make sure that the oven has completely cooled. Preferably you should let the oven cool for at least 24 hours before servicing the stove.
- Thoroughly clean the stove. Enamel surfaces should be cleaned with soap and water.
- Empty stove of all soot and ashes.
Do not use a vacuum to remove ashes from a woodstove.
- Lift off the cook plates and pull out the bottom tray (part #123529) to the oven.
- Shovel out the ashes from the combustion chambers and place them in a proper, sealable, ash container.
- For ease of clean-out of the ovens heat exchange chambers an ash removal port (part # 100872) has been provided with the 404 located in the heat exchange chamber below the oven.
Be sure to replace the ash removal port cover (part # 100872) before operating the stove.
- Clean the cookplates and then coat the cook surfaces with vegetable oil to help protect them.
- The cookplates should be treated like quality iron cookware and re-seasoned from time to time to add to their longevity and appearance. **(the seasoned cook surfaces will darken when heated this is normal and part of the seasoning process)**

- Inspect the stove; using a strong light inspect the stove inside and out for cracks or leaks. Replace all cracked parts and repair any cement leaks with furnace cement.
- In order to maintain the proper performance, a yearly chimney inspection and cleaning is necessary. Failure to keep the chimney system free of creosote and build up could result in a serious chimney fire.

ACCESSORIES

The 404 cook stove is equipped with several cooking accessories:

- Stove tool (part # 124478)
- Ash rake (part #151429)
- Porcelain baking pan (part # 120293)
- Ash pan (part # 150206)
- Oven shelf (part # 120292)

WARNING: ALWAYS OPERATE YOUR JØTUL 404 COOK STOVE WITH THE COMBUSTION CHAMBER DOORS COMPLETELY CLOSED AND PROPERLY SECURED. PARTIALLY OPENED DOORS MAY RESULT IN OVER-FIRING.

IF DOORS ARE LEFT EVEN PARTIALLY OPEN, GAS AND FLAME MAY BE DRAWN OUT OF THE STOVE OPENING, CREATING RISKS FROM BOTH FIRE AND SMOKE.

BE SURE TO SAVE THIS MANUAL FOR FUTURE REFERENCE!

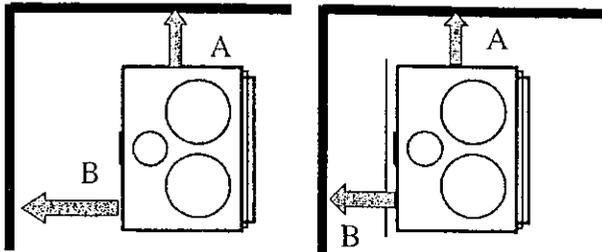
The following clearances are based upon using the rear flue collar position for a horizontal connector and the top flue collar position for vertical pipe installations. Please reference the connector pipe requirements for alternate pipe configurations.

STOVE CLEARANCES	UNPROTECTED SURFACE PARALLEL INSTALLATION			PROTECTED SURFACE NFPA 211 PARALLEL INSTALLATION		
	SIDE A	REAR B	CORNER C	SIDE D	REAR E	CORNER F
Stove with no heat shields	20" 510mm	16" 405mm	14" 355mm	8" 205mm	8" 205mm	8" 205mm
Rear heat shield No connector shield	20 510mm	11" 280mm	14 " 355mm	8" 205mm	5 " 125mm	5" 125mm
Rear heat shield with connector shield	20" 510mm	5" 125mm	14 " 355mm	8" 205mm	5" 125mm	5" 125mm
Rear heat shield with double-walled pipe	20" 510mm	5" 125mm	14" 355mm	8" 205mm	5" 125mm	5" 125mm

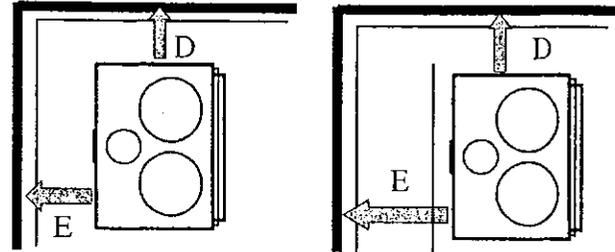
**CONNECTOR MUST BE A LISTED STOVE PIPE CONNECTOR . SEE DEFINITION ON
PAGE 4**

CONNECTOR CLEARANCES	UNPROTECTED SURFACES VERTICAL INSTALLATION	PROTECTED SURFACE NFPA 211 VERTICAL INATALLATION
	Single wall with no connector shields	12" 305mm
Single Wall connector with connector shields	6" 150mm	6" 150mm
Double-walled connector	6" 150mm	6" 150mm
	UNPROTECTED SURFACES HORIZONTAL INSTALLATION	PROTECTED SURFACE NFPA 211 HORIZONTAL INSTALLATION
Single wall connector	18" 460mm	12" 300mm
Double-walled Pipe	6" 150mm	6" 150mm
MANTEL AND TRIM CLEARANCES	Stove to 1" thick or less, side trim	20" 510mm
	Stove to 1" thick or less, top trim	48" 1220mm
	Stove to mantel- maximum mantel depth 11"	48" 1220mm

**UNPROTECTED SURFACE
PARALLEL TO THE WALL**



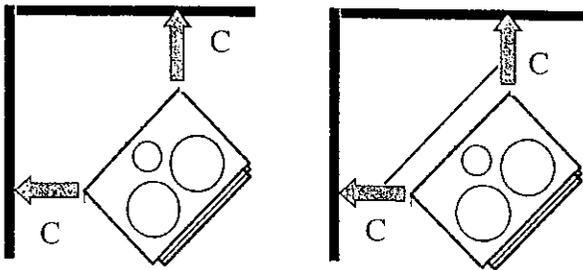
**PROTECTED WALL (PER NFPA 211)
PARALLEL TO THE WALL**



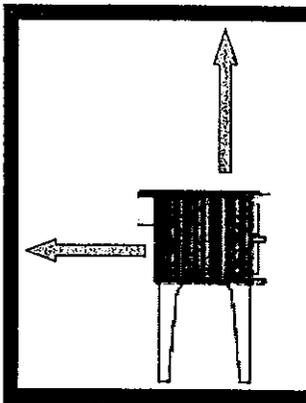
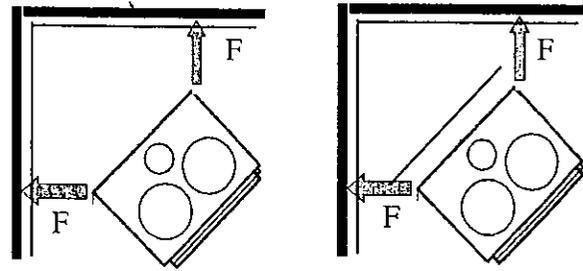
IMPORTANT:

IF THE SPECIFIC INSTALLATION YOU ARE INTERESTED IN IS NOT ADRESSED IN THIS MANUAL YOU MUST DEFER TO THE NFPA 211(US) OR CAN/CSA B365 (CAN)

**UNPROTECTED SURFACE
CORNER INSTALLATION**



**PROTECTED SURFACE (PER NFPA 211)
CORNER INSTALLATION**



ALCOVE LISTINGS

MINIMUM ALCOVE WIDTH :

Stove must be centered

Unprotected: 64"(1625mm)

Protected (per NFPA211& CAN/CSA -B365-M93) :
40"(1015mm)

MAXIMUM ALCOVE DEPTH

Refer to chart for minimum rear clearances.

Unprotected: 48" (1220mm)

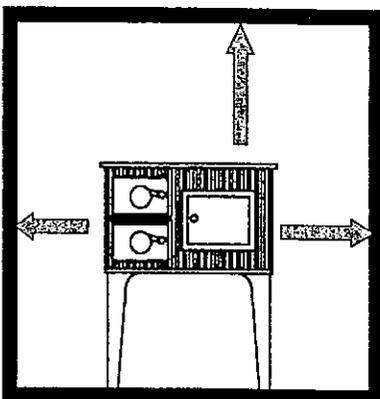
Protected (per NFPA211& CAN/CSA -B365-M93) :
48"(1220mm)

MINIMUM ALCOVE CEILING HEIGHT

(Measured from top of stove)

Unprotected : 48" (1220mm)

Protected (per NFPA211& CAN/CSA -B365-M93):
16" (405mm)



APPENDIX A:

ALTERNATE FLOOR PROTECTION

All floor protection materials must be non-combustible ie. metal, brick, stone, mineral fiber boards). Any combustible material may not be used.

The easiest means of determining if a proposed alternate floor material meets requirements listed in this manual is to follow this procedure.

R-value = thermal resistance
 k-value = thermal conductivity
 C-value = thermal conductance

1. Convert the specification to R-value;
 - a. If R-value is given, no conversion is needed.
 - b. If k-value is given with a required thickness (T) in inches: $R=1/k \times T$.
 - c. If C-value is given: $R=1/C$.
2. Determine the R-value of the proposed alternate floor protector.
 - a. Use the formula in Step 1 to convert values not expressed as "R".
 - b. For multiple layers, add R-values of each layer to determine overall R-value.
3. If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

EXAMPLE:

The specified floor protector should be 3/4" thick material with a k-factor of 0.84. The proposed alternate is 4" brick with a C-factor of 1.25 over 1/8" mineral board with a k-factor of 0.29.

Step A. Use formula above to convert specifications to R-value. $R=1/k \times T= 1/.84 \times .75 = .893$

Step B. Calculate R of proposed system.
 4" brick of C-1.25, therefore
 $R \text{ brick} = 1/C = 1/1.25 = 0.80$
 1/8" mineral board of $k = 0.29$ therefore
 $R \text{ mineral board} = 1/.29 \times 0.125 = 0.431$

Total R = R brick + R mineral board=
 $0.8 + 0.431=1.231$

Step C. Compare proposed system R = 1.231 to specified R of 0.893. Since R is greater than required, the system is acceptable.

Definitions:

Thermal conductance =

$$C = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{W}{(\text{m}^2)(\text{K})}$$

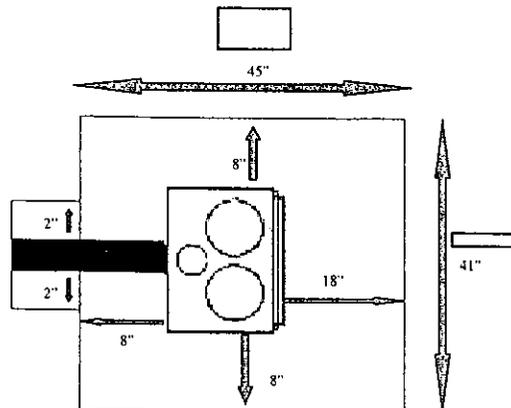
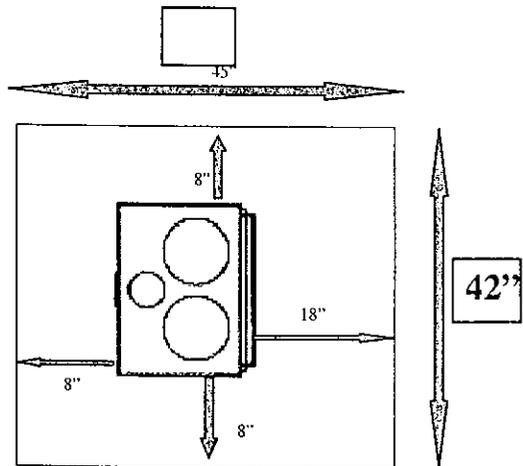
Thermal conductivity =

$$k = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{W}{(\text{m}^2)(\text{K})} = \frac{(\text{Btu})}{(\text{hr})(\text{ft})(\text{F})}$$

Thermal resistance =

$$R = \frac{\text{Btu}}{(\text{hr})(\text{ft}^2)(\text{F})} = \frac{(\text{m}^2)(\text{K})}{W} = \frac{(\text{Btu})(\text{inch})}{(\text{hr})(\text{ft}^2)(\text{F})}$$

FOR THE JØTUL404 WOOD COOK STOVE REQUIRES FLOOR PROTECTION WITH A MINIMUM INSULATING R VALUE OF 0.5.



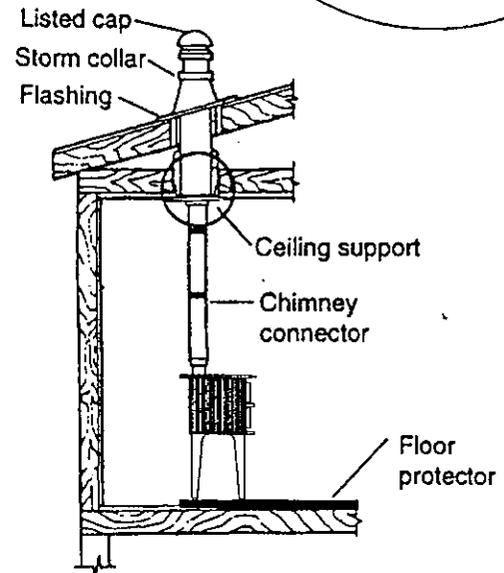
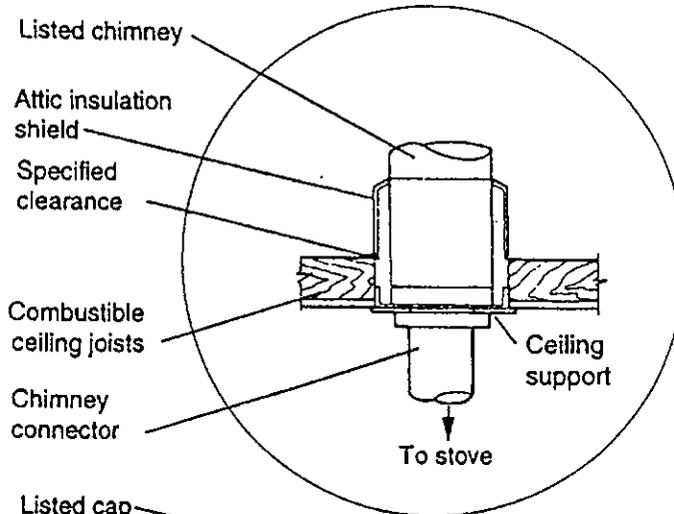


FIGURE 10

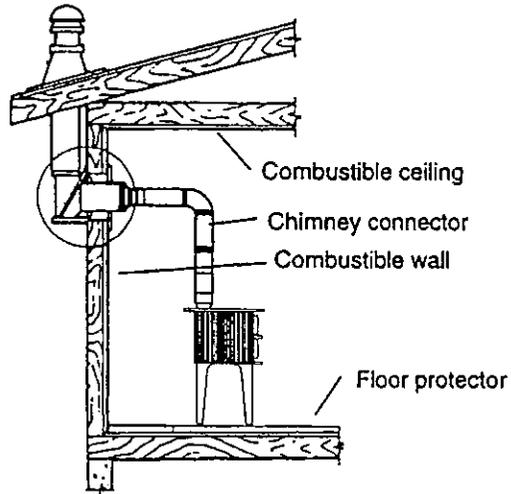


FIGURE 9

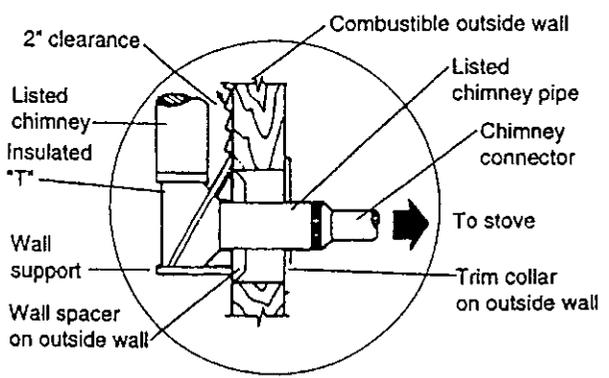
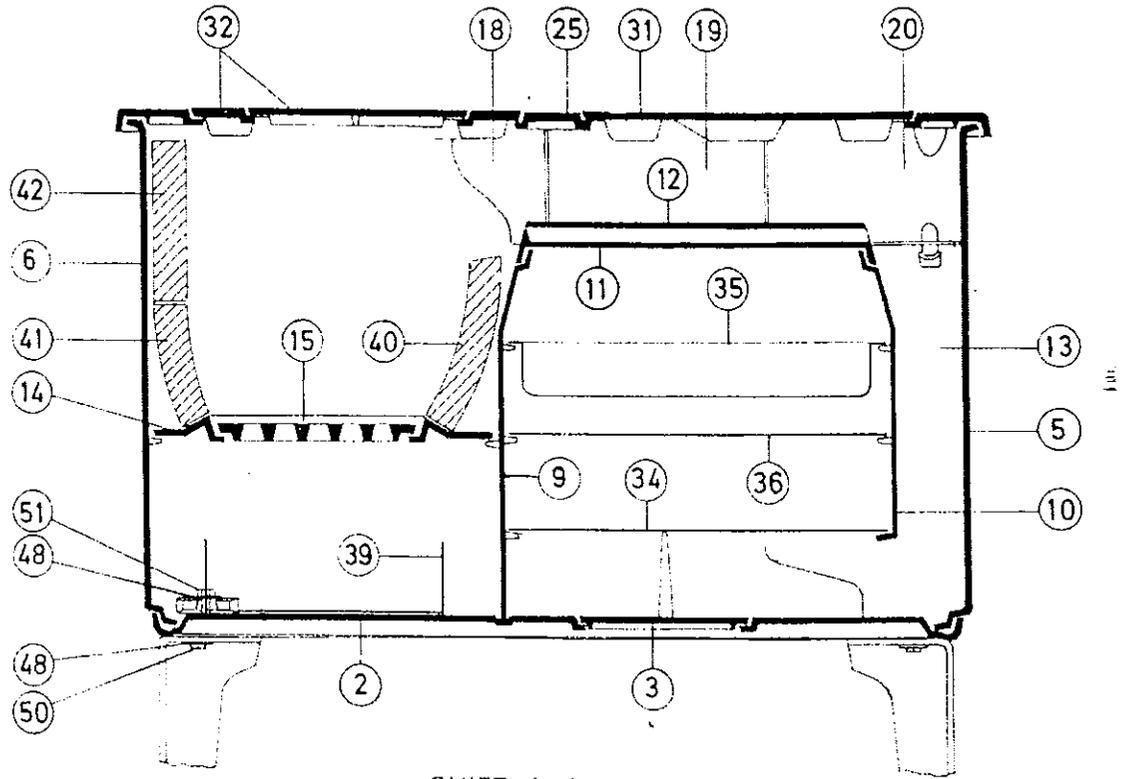
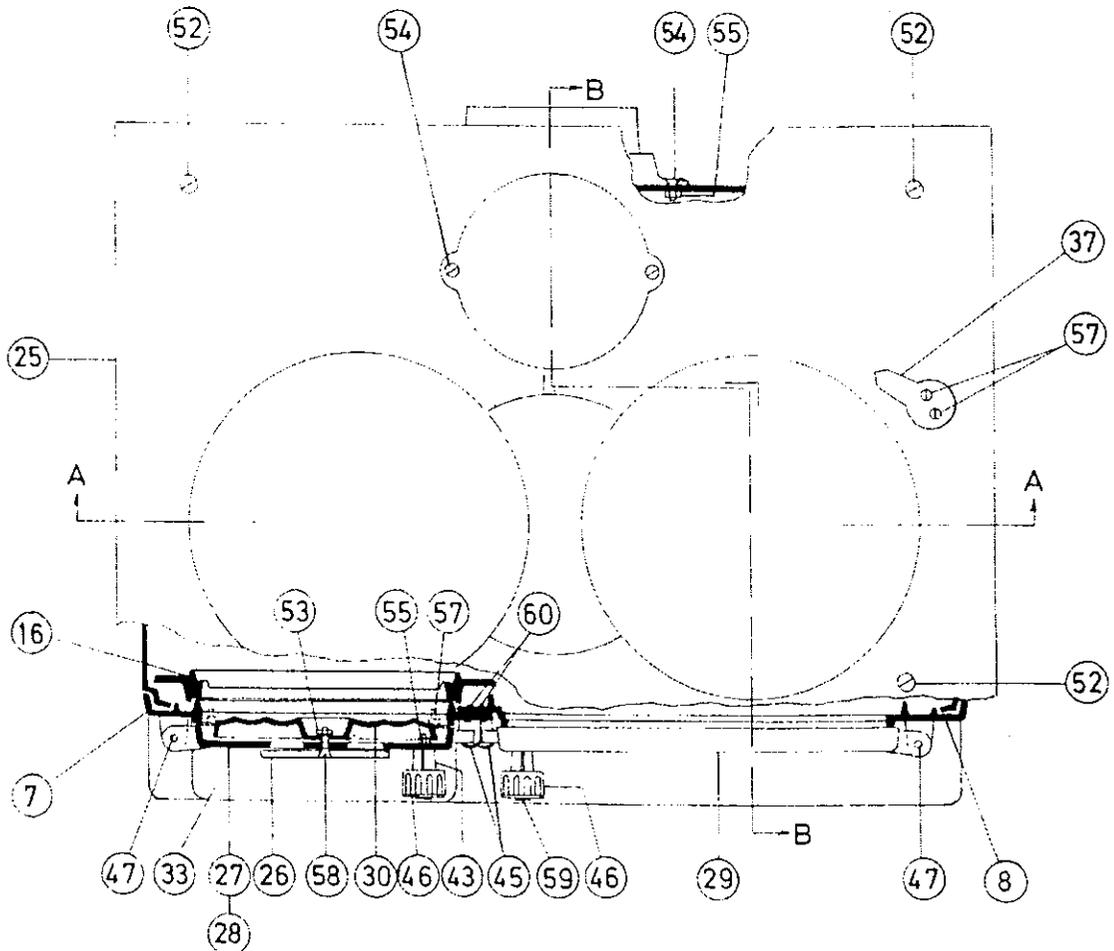


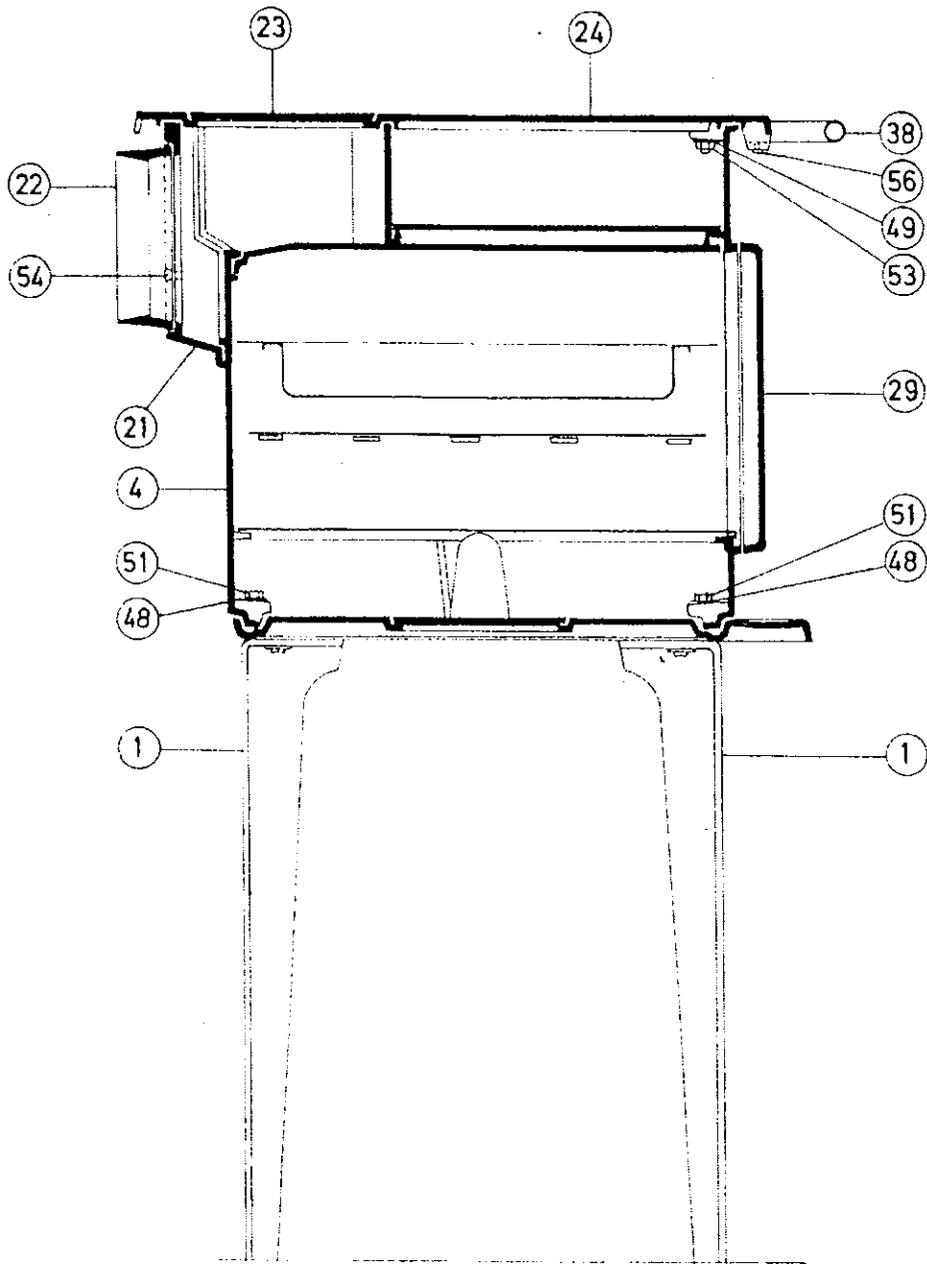
FIGURE 11

APPENDIX C

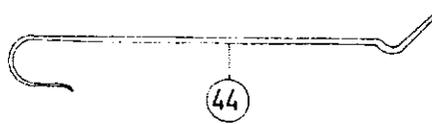


SNITT A-A





SNITT B-B



Pos	Part no.	Description			
1	100897	Leg	48	120004	Washer, flat
2	100871	Base plate	49	117452	Washer, Ø8, 4x20x1,5mm
3	100872	Cleaning hatch	50	116945	Screw, M6x22mm 9904
4	100873	Back panel	51	117099	Screw, M6x25mm
5	100874	Panel, right side	52	116909	Screw, 8x30mm
6	100875	Panel, left side	53	117004	Nut, M8 9931
7&8	153152	Front, complete	54	116894	Screw, M6x16mm
9	100878	Oven wall, left	55	116832	Nut, M6 9930
10	100879	Oven wall, right	56	116849	Screw, M6x10mm 9980
11	100880	Oven top	57	116889	Screw, M5x8mm
12	100881	Oven overplate	58	116908	Screw, M8x25mm
13	100882	Flue divider	59	116951	Screw, M6x40mm
14	100883	Grate carrier	60	116939	Screw, M6x16mm
15	100899	Grate	61	124817	Adapter for smoke outlet
16	100900	Front grate carrier	62	101559	Smoke outlet
18	100884	Flue plate, left	63	126244	Door knob
19	100885	Flue plate, right	64	126229	Sleeve
20	100886	Oven damper	65	124853	Washer klingerit
21	100887	Rear flue flange	66	120293	Baking pan
22	100646	Flue spigot	67	151429	Ash rake
23	100888	Blanking plate, top			
24	100889	Top plate			
25	100890	Spacer, hot plate			
26	100891	Air control			
27	153146	Feeder door, complete 10412			
28	153147	Ash door, complete 150445			
29	153148	Oven door			
30	10141212	Feeder door, baffle			
31	10089814	Hot plate, right, 240mm			
32	150478	Hot plate, left			
33	10089539	Ash lip			
34	123529	Oven bottom			
35	120293	Baking tray			
36	120292	Oven shelf			
37	120288	Oven regulator			
38	120294	Rail			
39	150206	Ashpan			
40	120131	Fire brick, right			
41	120130	Fire brick, lower, left			
42	140253	Fire brick, upper, left			
43	124479	Door knob, base			
44	124478	Tool, hotplate handle			
45	120290	Door catch			
46	120015	Knob			
47	125960	Pin, crommed, Ø6x33mm			

JØTUL LIMITED WARRANTY

Jøtul North America warrants, to the original retail purchaser, that this stove will be free of defects in material and workmanship for period of **five years from the date of purchase**. Jøtul North America will repair or replace, at its option, any part or stove found to be defective. You must, at your own expense, arrange to deliver or ship the stove or part to an authorized Jøtul dealer and arrange for pickup or delivery of the stove or part after the repairs have been made. If upon inspection, the damage is found to be the fault of the manufacturer the repair or replacement will be made. This warranty is not transferable and is extended only to, and is solely for the benefit of, the original retail purchaser of the stove. Please retain your dated sales receipt in your records as proof of purchase.

EXCLUSION AND LIMITATIONS

This warranty does not cover the following:

1. Repair or replacements of parts which are subject to normal wear and tear during the warranty period or to parts that may require replacement in connection with normal maintenance. These parts include gaskets, burnplates, baffles, grate assemblies, glass and hoppers.
2. Damage due to incorrect installations not in conformity with installation instructions or local fire and building regulations.
3. Damage caused by overfiring, which is causing any part to glow red as defined in the operation manual. Overfiring can be identified by warped plates, by paint pigment that has turned dusty white, or bubbling, cracking and discoloration of the enamel finish.
4. Damage caused by unauthorized modification, use or repair.
5. Damage made while the stove is in transit.
6. Products for which warranties are provided by the manufacturer, such as catalytic combustors.

IN NO EVENT SHALL JØTUL NORTH AMERICA BE LIABLE FOR SPECIAL INCIDENTAL OR CONSEQUENTIAL DAMAGES. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WRITTEN WARRANTY IS ENFORCEABLE.

Some states do not allow the exclusions or limitation on the length of implied warranties. Therefore, the above limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.

If you believe your Jøtul stove is defective, you should contact your nearest authorized Jøtul dealer, who will process a warranty claim.

This warranty given by:
Jøtul North America
P.O. Box 1157
400 Riverside Street
Portland, ME 04104

GARANTIE LIMITEE JØTUL

Jøtul North America garantit à l'utilisateur- acheteur d'origine l'absence de toute defectuosite de main d'oeuvre ou materielle du poele ou atre achete pendant 5 ans a dater de l'achat. Jøtul North America reparera ou remplacera, a son gre, toute piece ou poele confirme defectueux. Votre responsabilite est de livrer ou d'expedier, a vos propres frais, l'appareil ou la piece a un concessionnaire Jøtul agree et de prendre toutes dispositions necessaires pour son ramassage ou son renvoi apres la reparation. Au cas ou une inspection prealable decouvrirait que le dommage, quel qu'il soit, resulte d'une faute quelconque du fabricant, la reparation ou le remplacement aura lieu. La presente garantie n'est pas transferable et n'est accordee qu'a l'acheteur- utilisateur d'origine et pour son benefice uniquement. Veuillez conserver votre receptisse date comme preuve d'achat en cas de reparation sous garantie.

EXCLUSIONS ET LIMITATIONS

Cetta garantie sera consideree comme nulle et non avenue dans les cas suivants:

1. Reparation ou remplacement requis pour pieces soumises a une utilisation et a une usure normales pendant la periode de garantie ou dont remplacement est prevu pour entretien normal. Ces pieces comprennent: Joints etanches, deflecteurs, ensemble grilles, vitres et tremies.
2. Dommages causes par une installation erronee ou non conforme aux directives stipules ni au reglements imposes par les autorites locales de la construction et de la prevention des incendies.
3. Dommages resultant d'une surchauffe causant l'incandescence de certaines parties du poele tel que defini dans le manuel de fonctionnement. Une surchauffe peut etre identifiee par la deformation des plaques, la transformation de la pigmentation de la peinture en poussiere blanche ou les boursouffures, et la decoloration du fini emaille.
4. Dommages causees par une modification, reparation ou utilisation non autorisee.
5. Dommages survenu pendant le transport du poele ou de l'atre.
6. Articles et produits garantis par leur propre fabricant, tel que le catalyseur de combustion.

JØTUL NORTH AMERICA NE SERA, EN AUCUNE CIRCONSTANCE, TENUE RESPONSABLE D'AUCUN DOMMAGE DIRECT. ACCESSOIRE OU INDIRECT QUEL QU'IL SOIT. LA DUREE DE TOUTES GARANTIES TACITES, Y COMPRIS CELLES GARANTISSANT LA VALEUR MARCHANDE OU LA FACILITE D'ADAPTATION POUR UN USAGE PARTICULIER OU AUTRE DE L'APPAREIL EST LIMITEE A LA DUREE COUVERTE PAR LA PRESENTE GARANTIE. AUCUNE AUTRE GARANTIE, ORALE OU ECRITE, NE POURRA ETRE LEGALEMENT EXECUTEE.

Certains etats ou provinces n'autorisent pas les exclusions ni les limitations precitees pour dommages indirects ni pour la duree des garanties tacites. Il se peut, par consequent, que les limitations prevues dans la presente ne s'appliquent pas dans votre cas. Cette garantie vous accorde certains privileges specifiques auxquels d'autres, pouvant varier d'un etat ou d'une province a l'autre pourront s'ajouter.

Si vous soupconnez que votre poele ou atre Jøtul est defectueux, nous vous recommandons de communiquer immediatement avec votre concessionnaire Jøtul le plus proche qui traitera votre reclamation aux termes de la presente garantie.

WARRANTY Feb. 1999



Stoves and fireplaces must be installed to conform to local and national building regulations. Before preparing for the installation of the appliance, it is important that the instructions issued with the unit are carefully read and strictly adhered to. Jøtul pursue a policy of constant product development. Products supplied may therefore differ in specification, colour and type of accessories from those illustrated and described in the brochure.

Jøtul vise sans cesse à améliorer ses produits. C'est pourquoi, il se réserve le droit de modifier les spécifications, couleurs et équipement sans avis préalable.

Jøtul ASA

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N-1602 Fredrikstad, Norway

Jøtul North America

400 Riverside Street
Portland, Maine 04104

Cat.no. 129214 - Tegn.no. 4-3380-P00