THINGS YOU MUST DO TO KEEP WARRANTY VALID:

1. Remove clinkers and ash daily; during real cold weather twice daily or night and morning. After removing clinker, rake all the ash out down to 2" below the bottom of the inner fire door. Clean out air chamber below heat exchanger once a year by removing clean-out plate in back of clinker bucket.

2. Install thermostat in the same room as heater, away from drafts or direct heat. Do not place on an outside or cold wall.

3. Keep circulating fan guard and grill openings clean and free from lint so that the air circulation is not inhibited.

4. Keep grease in gear case up to the level of the screw plug, located on the face and lower left quarter of the gear case.

5. Use only Stokermatic specified grease (SAE 90 Transmission oil).

6. Oil stoker motor and fan motor with 5 to 10 drops of S.A.E 10/30 motor oil in each cup as instructed on side of motor. Keep grease or oil off of motor belt.

7. Use good coal, with not more than 20% (fines) in it. We recommend a 20/80 oil treated blend, meaning 20% fine coal and 80% 3/16" to 1" diameter coal blended together to make what is known as stoker coal. The BTU rating of the Super Heater is based on coal having a rating of 12,500 BTU's per pound. Coals with lower ratings may be used but with corresponding reduction in heating capacity.

8. Keep smoke pipe and chimney open and free from soot and fly ash so there is always a good updraft for proper coal combustion. To insure good updraft, chimney should extend at least two feet above the highest part of the roof.

THINGS YOU MUST NOT DO:

1. Do not hand-fire or burn paper, wood or garbage in the heater. A Stokermatic is an automatic coal feeding piece of machinery and should not be used otherwise. Hand firing will damage the automatic controls and heat exchanger.

2. Do not place wet clothes or other objects directly on heater to dry. The hot air must be allowed to circulate freely from the heater, or damage to automatic controls and heat exchanger may result.

3. Do not allow clinker or ash to pile up above the lower part of the inner fire door. Do not take clinkers out when they are red hot. Turn the thermostat down and allow clinkers to cool before removing clinkers and ash

4. Do not operate the heater with hopper lid open, it may cause smoke-back.

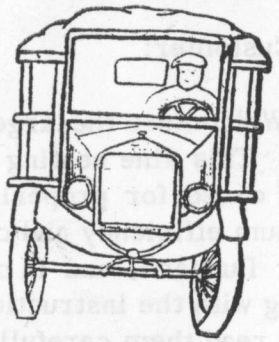
5. Do not increase the rate of coal feed into the heat exchanger.

6. Do not use oils and greases in the gear case or transmission, other than the ones recommended.

7. Do not allow the belt to get so loose that it slips on the pulleys.

manufactured by THE STOKERMATIC COMPANY
1610 Industrial Road, Salt Lake City 4, Utah

Pease Feed & Coal



STOKERMATIC SUPER HEATER!

Pease Feed & Coal
723 Lane 8
Powell, WY 82435
307-754-3757

A Guide to

HOME-HEATING COMFORT

Dear Customer:

Welcome to the large family of Stokermatic Super Heater users. This fine heating equipment will serve you long and well if cared for properly. We are confident you will want maximum efficiency and comfort from your Stokermatic Super Heater Furnace, and in order to do this it should be used in keeping with the instructions given for its proper care and use. Please read them carefully.

To help you become better acquainted with your new Stokermatic Super Heater Furnace, you will be given _____ day's free service. This service will end _____. After the free service period, parts will be furnished according to Company Warranty.

For service call:

Collect Calls cannot be recognized.

Thank you for your patronage.

Very truly yours,

_____
Dealer

_____
Date of Installation

_____
Owner

WHAT TO DO IF HEAT IS INTERRUPTED

Your heater is a mechanical device and like every piece of machinery, sometimes is out of service temporarily. Most times the difficulty is not serious. Usually you can locate and fix the "trouble" yourself in a matter of minutes. If you follow the four easy steps below you'll cure 70% of the troubles you may have . . . probably in less time than it takes you to read these two pages.

CHECK YOUR THERMOSTAT. Sometimes children play with thermostats. Sometimes adults brush against them, changing the setting. Be sure your thermostat is set at the desired temperature before looking elsewhere. Simple? Sure it is, but you'd be surprised how many people forget!

CHECK THE FUSE. The fuse that controls the flow of electric current to your heating plant may be located in your central fuse box, or in a separate fuse box near your heating plant. Keep spare fuses of the right amperage handy at all times and never use coins or other metal objects as substitutes.

CHECK FOR dirty fire or excessive buildup of clinkers. Remove clinkers and ashes.

CHECK FOR too large of coal or coal arching in hopper. Clean out hopper. Remove large pieces of coal or other large objects which might be stuck in flights of feed screw.

If, after making these checks, your heating system still fails to function, it's usually best to call a trained specialist . . . YOUR SERVICEMAN!

However, if you are mechanically minded, or, if for some reason, help will not be available in reasonable time, follow these "checks." You'll probably locate the trouble without help.

CHECK FOR loose belt. Take up slack in belt by raising motor on the adjustable bolts (Fig. 16), front and back. Tighten up tension bolt underneath motor housing platform. Use front bolts adjustment first and if more is needed, use back bolts.

CHECK FOR sheared off shear pin. Turn feed screw counterclockwise several turns with wrench on the tooled end of the feed screw (Fig. 14). Remove old pin. Replace with new shear pin.*

*The shear pin in a small piece of cold rolled steel three-sixteenths inch in diameter and about one and one-fourth inches long. It is located about one and one-fourth inches from the back end of the feed screw or coal auger and is placed in a one-four'. inch drill hole which runs through the feed screw and outer drive casing of tl e transmission (Fig. 14). Its purpose is to act as a safety device to protect the motor in case any foreign objects such as rocks, spikes or wood should get mixed up with the coal and work their way into the feed screw tube. All the tension of turning the feed screw rides on this small pin. When the tension gets too great, due to foreign obstructions in the coal, this pin shears off allowing the motor and transmission to ride free of the feed screw. Should this happen the motor would run, but the feed screw remains stationary. The obstruction causing the shearing off of the pin must be removed to remedy the trouble.

IMPORTANT OPERATIONAL INSTRUCTIONS

INSTALLATION: The STOKERMATIC SUPER HEATER should be installed on a sheet of asbestos board or pressed board to protect floors and carpeting.

STARTING THE FIRE: Set room thermostat at temperature desired. It must be set higher than the room temperature or the stoker will not operate. Make sure the stoker switch located in back of the heater is in the "OFF" position. Fill the hopper with coal, using a bucket to prevent spilling on the floor. After the hopper has been filled, turn the stoker to "heat" and run until coal has filled the burner to the top, usually 10 to 15 minutes. Turn the stoker to "OFF" and put on top of the burner a large piece of crumpled paper. On top of this place some folded newspaper or cardboard. Put one cup of coal on top of the folded paper and ignite the crumpled paper. As soon as it is burning briskly, turn on the stoker switch. Inspect after a few minutes to see that the coal has ignited. A piece of old candle may be inserted in the crumpled newspaper for quick starting.

CAUTION: Do not build the fire with wood, or other combustible materials and never hand fire the heater. This can over-fire and damage the heater and controls, voiding the WARRANTY.

TO GET THE MOST FROM YOUR HEATER: Leave your thermostat setting constant both day and night. Contrary to popular opinion, lowering the temperature at night will not save very much fuel.

If thermostat is located in the warmest room in the house, the rest of the house may be always too cool. Or, if thermostat is located near a door or window, the furnace may go on too often. The location of your thermostat should insure "balanced" heat throughout the house. Keep thermostat out of the sun, away from heat or water pipes, away from outside walls and windows. Move poorly positioned thermostat. It costs little, saves much!

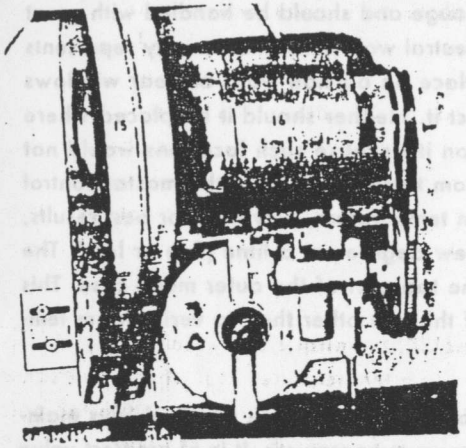
DAILY CARE: Clinkers should be removed from the firebox once each day and in real cold weather, morning and night. After removing clinkers, remove any excess ash to TWO INCHES BELOW THE BOTTOM OF DOOR. Never allow the fuel bed to build up above the bottom of the door, except with heavy coking coal. To do so decreases the efficiency of the heater and may damage the heat exchanger.

CHIMNEY: Clean out chimney elbows and pipe every year. Chimney should be at least 8" x 8" and extend two feet above the highest point of the roof. For excessive draft, install an automatic draft regulator. For best results do not use [illegible] in the same chimney.

FURTHER OPERATING SUGGESTIONS

AIR ADJUSTMENTS: Economy in burning coal depends on using a minimum of air to burn the fuel completely. Excess air simply passes through the combustion chamber, absorbs heat and then goes out the stack. Too little air will cause excessive sooting or may allow heat exchanger to fill with unburned coal.

Air adjustment cannot be properly made at the factory, but should be regulated in the home to meet the individual draft and chimney conditions. The adjustment should be made over a period of several days after having observed the fuel bed conditions in the unit. For ideal conditions, a fuel bed of about 4" to 6" should be maintained above the top of the tuyeres. Too much air blown into the heat exchanger will burn the fuel bed down too low and will cause excessive fly ash and loss of heat up the chimney. Too little air allows the coal bed to build up excessively high, causing excessive smoking and sooting, and part of the coal will remain in the heater unburned. The best results are obtained when just enough air is allowed to burn all the coal.



The air adjustment is located on the lower left hand side of the fan housing. The adjustment is made by loosening the knurled nut. This will allow free movement of the air baffle plate. For more air the knurled nut and screw is moved away from the Fan Case marking "on." For less air they are moved toward the Fan Case marking "off." When the air adjustment is set so that it produces the proper blaze in the heat exchanger, the set nut should be tightened down so that the air baffle cannot move out of place.

On units having the Over-Fire Air Jet, two dampers are provided. The top damper (Fig. 1) regulates the Over-Fire Air Jet and the bottom damper (Fig. 2) regulates the air through the tuyeres. To regulate properly, turn the Over-Fire Air off completely. Turn tuyere air on until the fire burns normally with no smokeyness. Turn air toward "off" until smoke appears on the flame tips, then turn on Over-Fire Air until it disappears again. Check after 24 hours.

YOU CAN SAVE HEAT: Stop drafts! Put caulking compound in all cracks around windows and door frames. Install weatherstripping and good insulation in walls and ceiling.

Arrange for an expert to clean and adjust your heating plant at least once a year. The cost is low, especially when compared to possible fuel savings.

When going away for a day or more, lower the thermostat. No need to heat an empty house!

PURPOSE AND OPERATION OF ELECTRICAL CONTROLS

The room thermostat regulates the operation of the heating equipment. It is sensitive to any change in temperature in the room where it is located.

The thermostat is a very sensitive heat gauge and should be handled with great care. It should be located on an inside neutral wall which most nearly represents the whole room temperature. Do not place on outside walls or near windows and doors where cold drafts might affect it. Neither should it be placed where hot air from the heater blows directly on it because such locations would not permit the thermostat to register true room temperature. The thermostat control pointer should be set at the desired room temperature, however, for best results, the control should be changed only a few degrees at a time (five or less). The thermostat has a little thermometer in the top part of the outer metal case. This has nothing to do with the operation of the unit other than to verify room temperature changes.

The Super Heater is equipped with a holdfire control clock which always maintains a fire in the furnace regardless of room temperatures. It is of greatest value during the fall and spring mild weather when a fire would ordinarily go out. This clock automatically turns the stoker on a few minutes every hour.

The combination fan and limit switch is mounted either near the center of the rear casing or under the top grill depending on the model. The fan side regulates the air circulating fan and the pointers are normally set at 150 and 125 degrees. Thus the fan would turn on when the temperature of the sensing element reaches 150° and would continue to circulate air until the temperature drops to 125° F. The limit side is a safety device which prevents the stoker from over-firing and over heating. In other words, this control will turn the stoker off when the temperature inside the outer casing reaches the temperature setting of this control. Never build a large hand fed fire of either coal, wood, or paper as it may burn the safety controls out. This control is set at the factory at 180 degrees. The unit is equipped with a switch for summer operation which is located either on the "on-off" switch or on the fan & limit switch depending on the model.

The only other electrical control is the manual switch located on the back of the unit. When the switch arm is turned to "heat," the switch operates all the controls and the stoker. When the switch is in the "off" position, all electrical power to the heater is turned off.

HOW THE STOKERMATIC SUPER HEATER WORKS

1. Oil-treated slack stoker coal is placed in hopper. (225 lb. capacity)
2. Coal is conveyed from the hopper through an underfeed metal tube and is carried by a coal auger or feed screw to the heat exchanger or firebox of the Super Heater.
3. Power for the feed screw is furnished by an electric motor and is transmitted by a V-type rubber belt to the transmission.
4. The transmission or gear case reduces the speed from a fast moving motor pulley to a very slow moving feed screw by means of reduction gears.
5. Air is blown into the heat exchanger or firebox by a fan mounted on the drive shaft of the motor.
6. Air is evenly blown into the coalbed through a series of portholes moulded into the tuyeres which completely surround the coal as it is fed into the heat exchanger.
7. As the fire builds up heat, a circulating fan turns on and circulates warm air into the home. On units equipped with a two speed fan, a separate fan control starts the fan at a slower speed and as temperature increases, the fan switches to full speed.
8. On models equipped with Over-Fire Air Jet, additional oxygen is supplied to the fire from a jet pipe forcing flame outward toward the fast absorbing primary heating surface. This thoroughly mixes the air and combustion gases to greatly increase burning efficiency.

(1) Hopper
(2) Feed Screw
(3) Motor
(4) Transmission
(5) Stoker Fan
(6) Tuyeres
(7) Circulating Fan
(8) Over-Fire Air Jet