hearthstone

NESTOR MARTIN

S31

Models 8800

Oil Burning Stoves

OWNER'S MANUAL

INSTALLATION
&
OPERATING
INSTRUCTIONS

Tested & Listed By O-T-L Portland Oregon USA
C US
OMNI-Test Laboratories, Inc.

Report #0261HH006S

Ce manual est disponible en Francais a
www.hearthstonetech.com

PLEASE READ THIS ENTIRE OWNER'S MANUAL BEFORE YOU INSTALL AND USE YOUR NEW S31 OIL STOVE. 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.

Never Burn Wood Products in this Stove! Use Heating Oil Only.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE!

CONTACT LOCAL AUTHORITIES HAVING JURISDICTION (BUILDING DEPARTMENT or FIRE OFFICIALS) ABOUT PERMITS REQUIRED, RESTRICTIONS AND INSTALLATION INSPECTION IN YOUR AREA.

California Prop 65

⚠ WARNING: This product can expose you to chemicals including glass wool fiber and carbon monoxide which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Models # S31
Manual6400-41401
R: 08//27/18

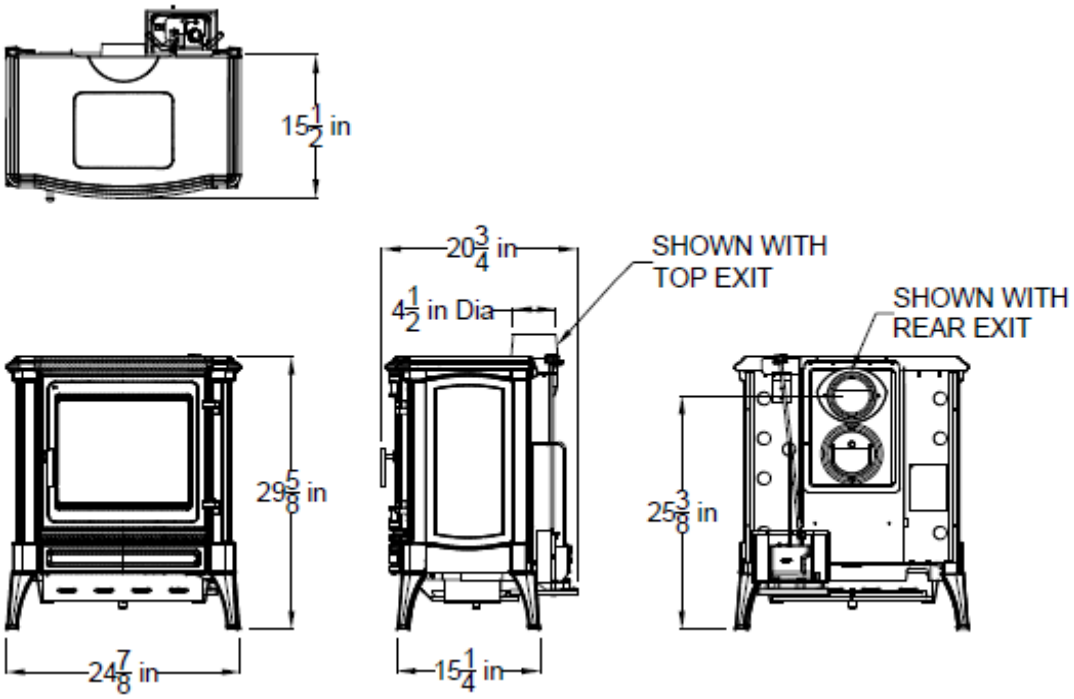
INTRODUCTION

A Nestor Martin oil stove is the elegant result of many years of engineering research and design expertise. It was built by people who are proud of knowing the Nestor Martin oil stove is the finest stove produced and would like to know their efforts will bring many years of pleasure, instilling the pride of ownership it deserves. Before beginning the task of installing the stove it should be remembered that it will be the major attraction in any room when it is lit and will continue to add character even when cold.

We hope this manual will answer all potential questions about the stove but it should not be regarded as more than a general guide, highlighting the requirement of good installation and proper usage. We recommend the installation of your stove only be performed by qualified persons familiar with all applicable local Codes and rules. It is imperative that the installation adhears to all applicable standards. It should be noted that standards may change during the life of this manual and as such specific quidelines outlined herein may be superseded.

INSTALLATION

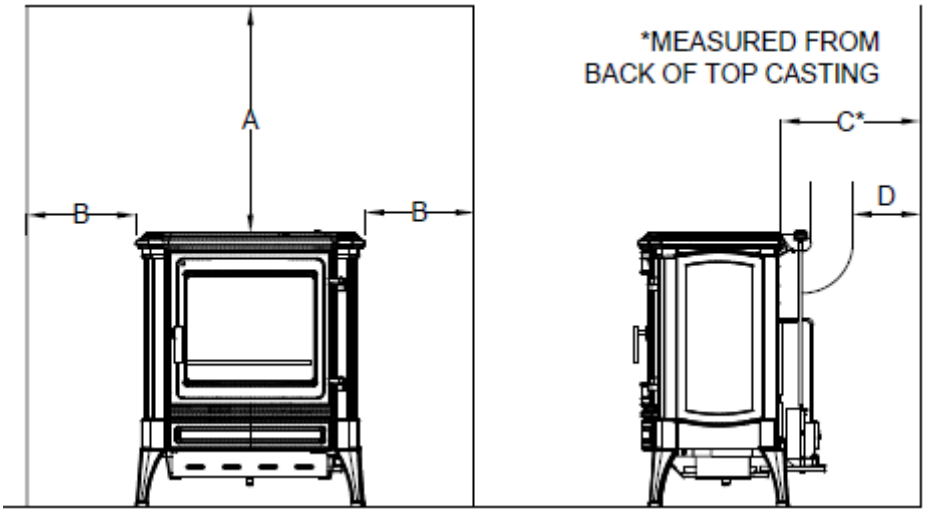
Stove Dimensions and Minimum clearances to combustible materials



Tested to and certified to:

- CSA B140.3-1962 (R2015)
- UL 896-2004 (R2012)
- UL 307A-2005 (R2013)

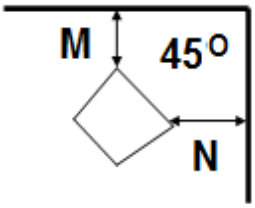
Do Not Use Gasoline, Crankcase Oil, or any Oil Containing Gasoline. This unit is approved for use with with only No.1 Oil, No. 2 Oil, and Kerosene**.**



	S31	
Dimension/Distance	**Inches**	**Millimeters**
A	24 ½”	623
B	11 ¾”	300
C	15”	381
D	6”	153

Additional clearances for corner installations

	S31	
Measurement	Inches	Millimeters
M	11 ¾”	300 mm
N	11 ¾”	300 mm

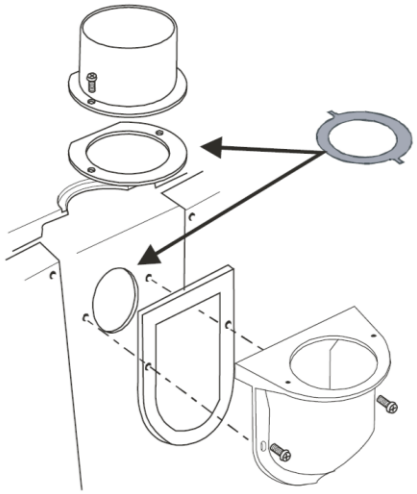


These measurements are a guideline only. In all installations, surrounding flammable materials must not exceed 176^0 F (80°C). The stove must always stand perfectly level and have sufficient space allowed for service work. These clearances can be reduced by:

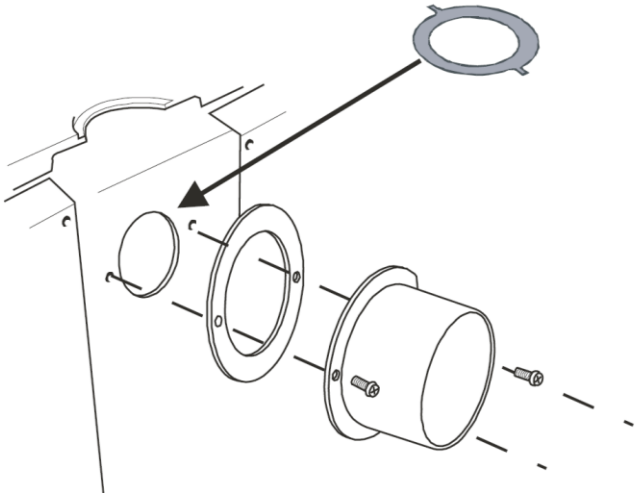
A. Using heat shield as listed in AS/NZS2918:2001 or AS1691:1985
B. Using a sheet metal spacing 7/8” (22 mm) from the wall, clearances may be reduced by 50%.

The S31 oil stove does not require the use of floor protection.

Top and Rear flue options where a top flue adapter is fitted.



Replace choke plate when converting the flue flue outlet if one is supplied with the stove.



THE FLUE

There is often confusion as to the terms “flue” and “chimney” and for the purposes of this manual we define whatever duct conveys the products of combustion as the flue, and the term chimney to mean any masonry structure within which the flue may be contained. The overall efficiency and reliability of the stove will depend upon the flue’s ability to provide a consistent negative pressure or draft, and it is therefore important to understand what can affect the flue’s performance and how to ensure the flue installation provides your stove with the optimum operating conditions.

However well the fuel metering valve is calibrated, proper combustion depends on the correct amount of air being supplied to the stove at all times. This is ultimately dependent on a properly adjusted and stable negative flue pressure. The initial flue draft is created by the gas confined within the flue being hotter and therefore lighter than the air outside the flue. The tendency for the hot gas to move up the flue is proportional to the height of the flue since the difference in weight of equivalent columns of air and flue gas is greater the higher the column. While this may be theorectically true, in practice, because the temperature of the flue gas is cooled through the wall of the flue and the flow is slowed by the friction of the internal surface of the flue, the benefits of extreme flue heights are negated.

The need to minimise the fluctuating effects of wind by having very hot flue gas temperatures inducing the greatest possible constant negative pressure within the flue conflicts with the ideal of utilising all the heat generated within the stove for heating. The compromise is to minimize whatever heat loss is necessary to create a gas flow within the flue by constructing the flue itself with an internal surface as smooth as possible and by being thermally insulating the system. Both these requirements can be met in an existing chimney by lining it with a stainless steel oil liner insulated with vermiculite or mineral wool. Where no chimney exists, double walled insulated stainless steel flue systems are available.

Atmospheric influences

Wind blowing across the flue cap can increase the negative pressure within the flue proportionate to the wind speed. Because wind speed is never constant, the varying effect this may have on the stove would be unacceptable. To control this, the stove is fitted with a draft stabilizer. When the negative pressure
from the stove. This will reduce negative pressure in the flue to fall within acceptable limits. When the wind speed decreases, the stabilizer will close to return the full negative pressure of the flue to the stove. During initial start up, the negative pressure within the stove is measured and the stabilizer is adjusted to suit the characteristics of the flue thus ensuring optimum control.

If the flue terminal is too low in relation to the roof or is masked by other buildings, it is possible for winds coming from certain directions to become so turbulent that the stove's stabilizer will be unable to respond quickly enough to the changing conditions. Trees often create turbulence problems and are frequently overlooked. Not only do the aerodynamics of trees change with the seasons and leaf growth, but a large tree may have no effect for many years yet its last foot of growth may cause a previously well controlled stove to become erratic. No termination cap can be installed on the flue terminal which will overcome all possible wind turbulence, but minor turbulence can often be reduced to acceptable levels with a suitable model. For major turbulence problems, increasing the height of your existing flue or altering the existing problematinc conditions will be the only effective cure.

The term down draft is often used erroneously to explain away almost any flue which is unable to sustain sufficient thermally induced gas speed. In most instances, this condition is caused by an insufficient flue which allows the flue gasses to cool too much and a cure may be a simple as installing insulated pipe. True down draft affects houses situated on or near to hills, when cooling air travels down the hillside.
This coditioin can normally be controlled with an efficient flue system and suitable termination cap. If, however, the wind causes a high pressure zone at the flue terminal, relocating the flue to the opposite side of the house may be the only effective answer. The opposite condition, when warming air travels up a hillside can produce very high negative flue pressures which will sometimes necessitate a barometric damper being installed on the flue.

Windows and doors opened down wind of prevailing winds and the running of large exhaust fans without adequate ventilation may cause the flue to stall or even become positively pressurized with potentially dangerous consequences. Any smell of flue gasses within the house should be investigated immediately. Damp weather is one of a multitude of atmospheric conditions blamed for poor flue draft. There is no theoretical or practical foundation for many of these atmospheric causes, only the existence of an oversized, cold and damp chimney needing lining and/or additional insulating.

Ventilation (Make Up Air)

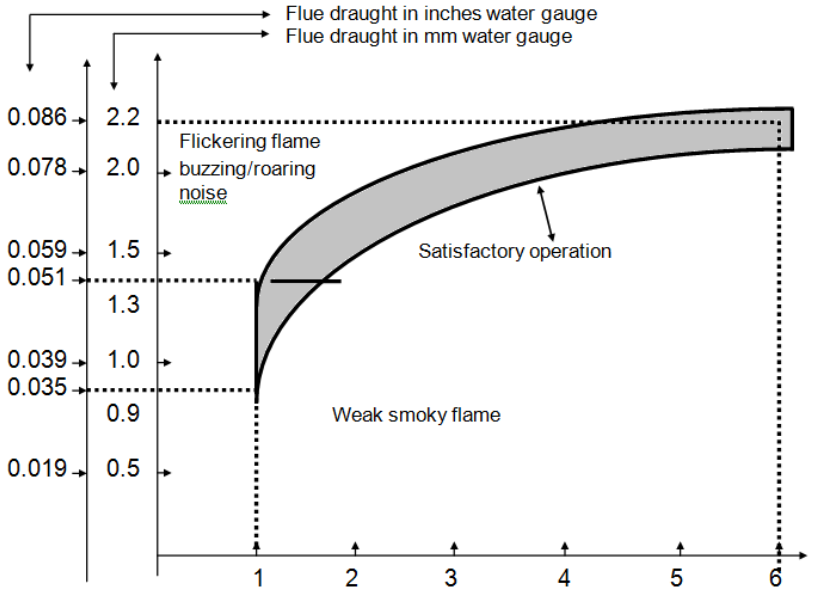
Providing sufficient ventilation to supply a stove with air has to be regarded as an integral part of the flue system. Unless the air passing through the flue is replaced with an equal amount of air entering the house, the flue will cease to function. The colder the outside temperature and the harder the stove is working to maintain the required temperature inside, the colder the incoming air and the greater its flow.
Any room or space containing an appliance should have a permanent ventilation opening of free area at least 550 mm^2 (0.8525 square inches) for every kilowatt (3,412 BTU) of rated output above 5 kilowatts (17,060 BTU)

OIL BURNING APPLIANCES SHALL BE CONNECTED TO FLUES HAVING SUFFICIENT DRAFT AT ALL TIMES TO ASSURE SAFE AND PROPER OPERATION OF THE BURNER.

When install the S31 always use a quality 4" L vent pipe. This will help to ensure your draft requirements are met.

FLUE PRESSURE ADJUSTMENT REQUIREMENTS

The flue creates the negative air pressure within the stove which induces the air into the burner. For the correct operation of the burner this air flow must be proportioned to the firing rate of the burner. The following chart below illustrates the required negative air pressures relative to the burner settings, with the shaded band giving the tolerance within which the burner will give satisfactory performance.



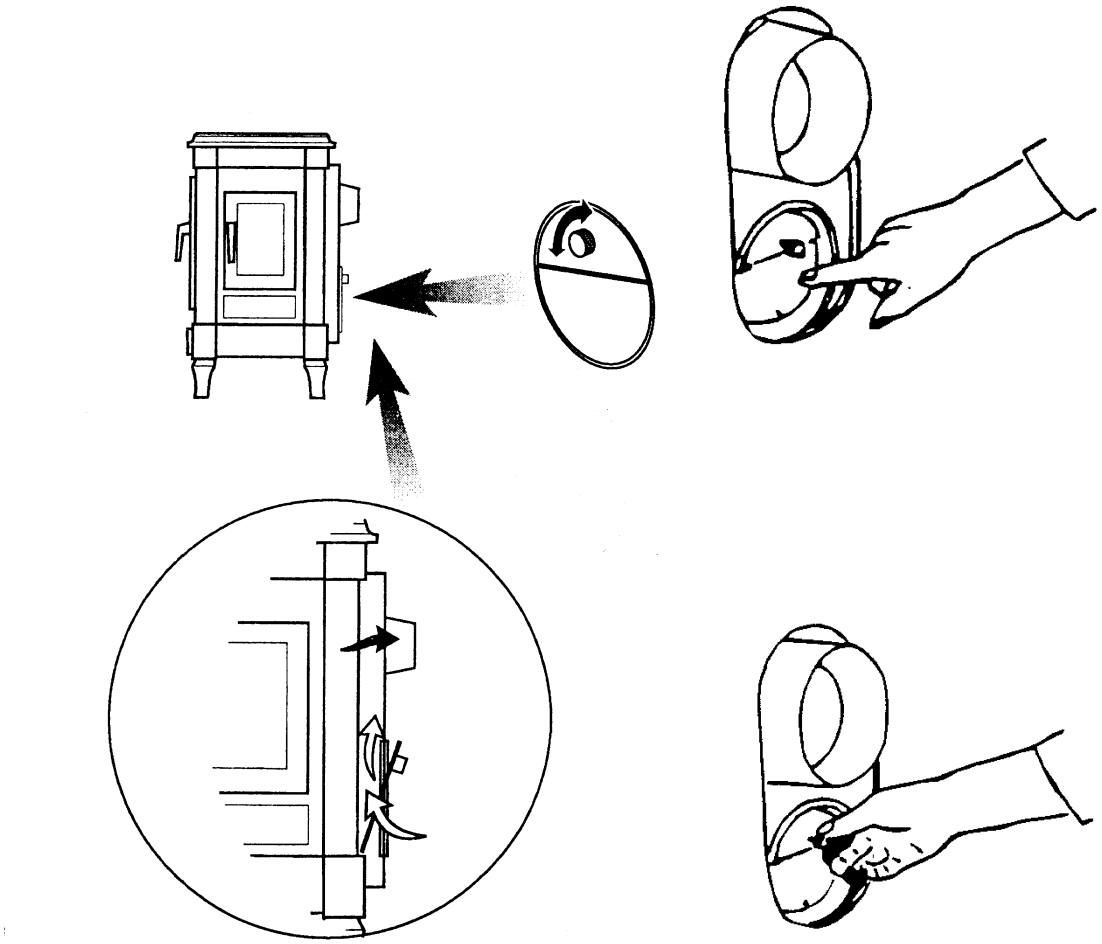
THE DRAFT STABILIZER

The draft stabilizer works by opening to provide an additional air supply to the flue whenever the flue's negative pressure reaches its upper limit. This action checks any rise beyond this limit to maintain the correct negative pressure within the stove.

This system of flue control is universally accepted as both effective and reliable, but because the supplementary air it allows into the flue is drawn from the room, it is desirable to have it open as little as possible.

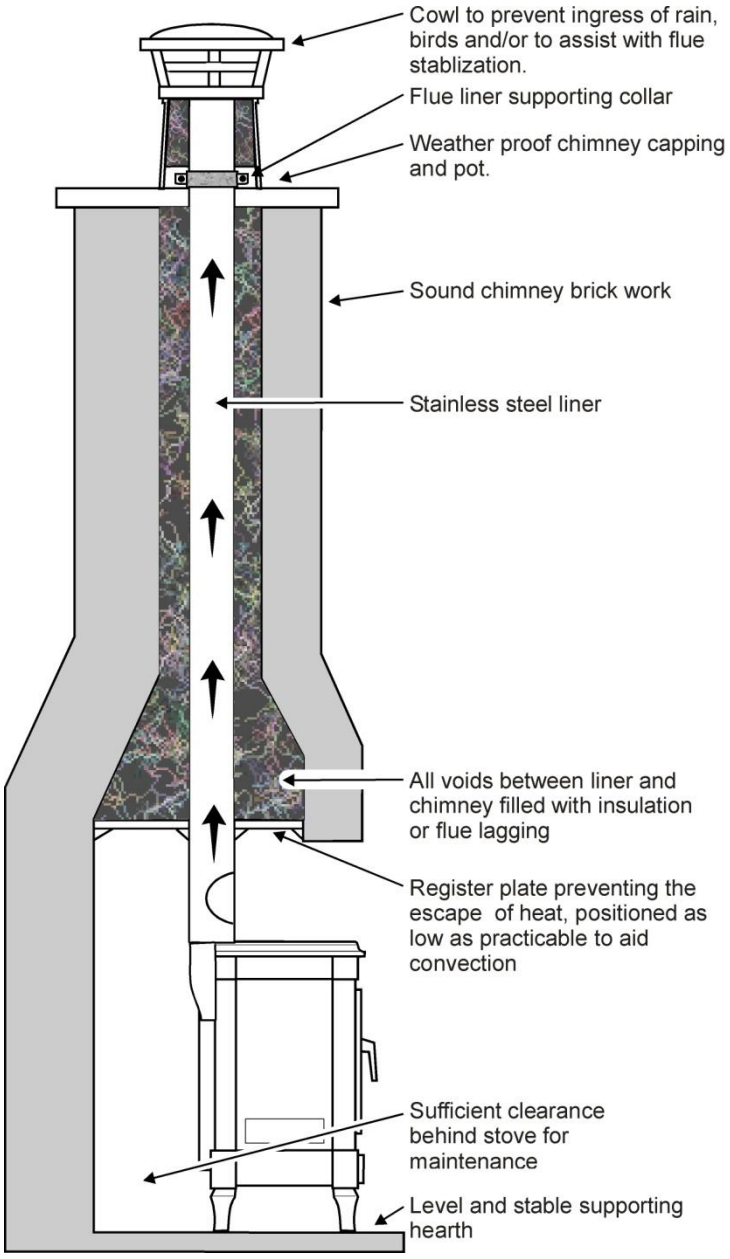
Where the flue is either subjected to prolonged strong winds or the flue itself is of higher efficiency than normal, the stabilizer may be unable to supply sufficient air to reduce the negative pressure adequately or be needlessly wasting room heat by having to supply dilution air constantly.

A second regulator may be installed on the stove's flue if during start up the flue is found to be subjecting the stove to a negative pressure which is too high for efficient combustion.

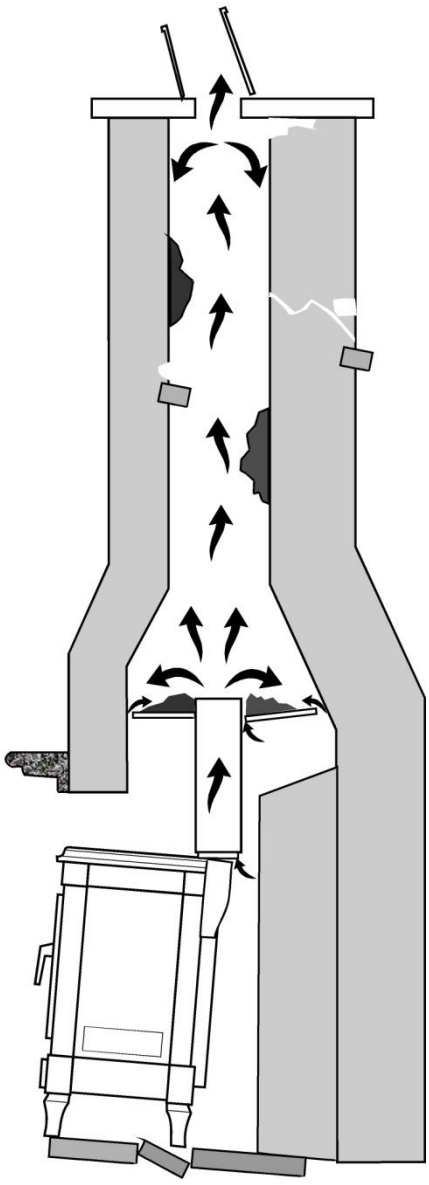


FLUE CONNECTION

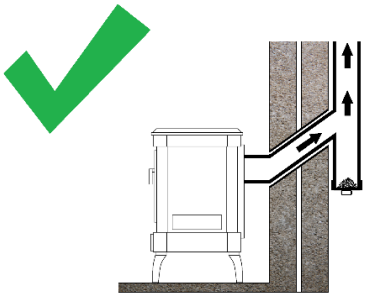
IDEAL



TO BE AVOIDED

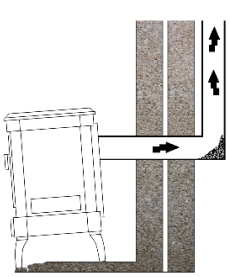


IDEAL

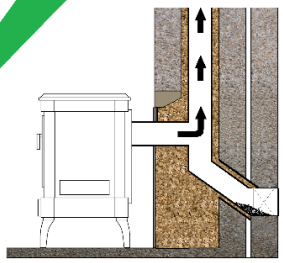


Insulated flue providing the minimum horizontal length. Access for cleaning, stove provided with a stable and adequate hearth

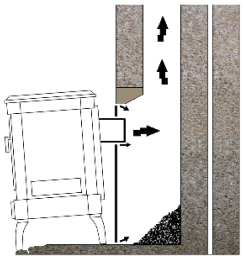
TO BE AVOIDED



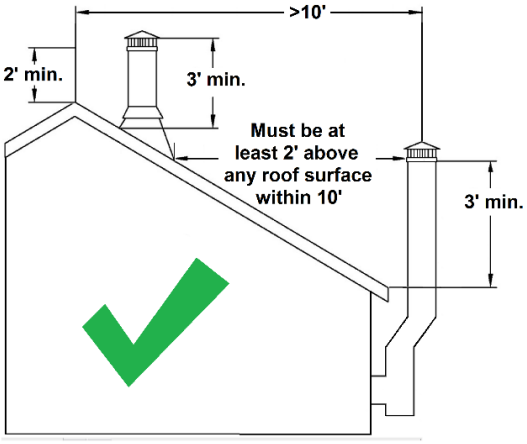
Single wall flue with no cleanout and excessive horizontal length allwoing debris to restrict flue. No allowance for flue sxpansion and an unstable hearth will both contribute to leaking flue seals.



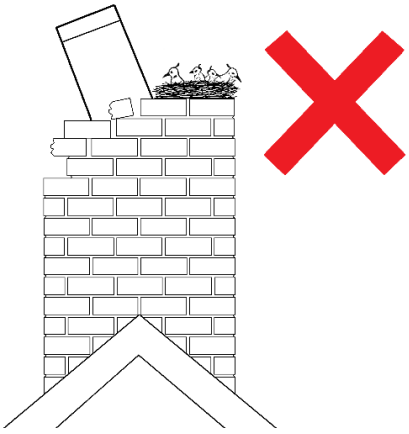
All voids within the chinmey filled with insulating material. Asscess for cleaning and minimum horizontal run.



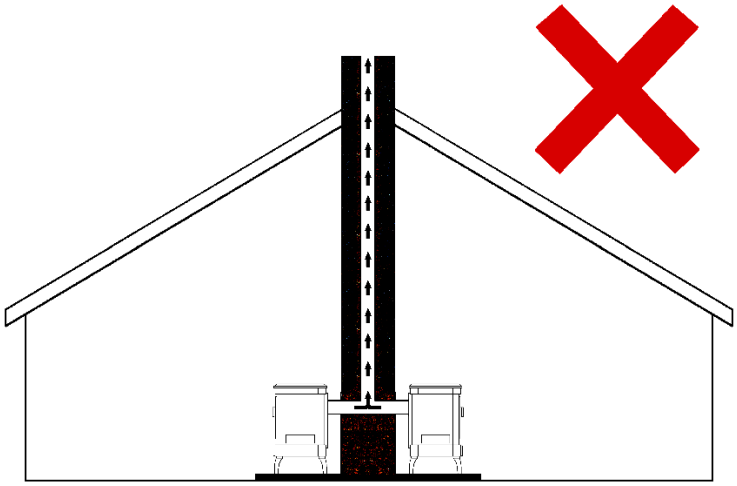
No liner installed, stove positioned on an unstable hearths makes sealing the flue impossible and no access for cleaning makes this installation dangerous.



Check local codes for propper flue termination locations.



Liner installed in a degraded flue, loose and/or missing bricks.



Connect only one stove per chimney

FUEL LINE AND TANK INSTALLATION

The Oil Storage Tank
An easily read level indicator installed on the oil storage tank will help the user monitor fuel consumption and avoid running out of fuel. It is important that this level indicator is calibrated in volumetric units enabling the oil delivery driver to ensure he does not overfill your tank.

Type of Tank
Contaminated fuel may do irreparable damage to the installation. It is impossible to determine whether or not an oil tank is free from contaminates by visual inspection, and as such it is strongly advised not to install a used oil tank. A steel tank will provide an annual opportunity to paint and treat any signs of rust with the knowledge that even a well maintained steel tank will eventually develop rust holes - usually at the inaccessible areas of the tank where it rests on its supporting piers. Polyethylene tanks will never rot or rust and are generally maintenance free.

Position of Tank
Avoid installing the tank where it will be subjected to direct sunlight. Warm tanks invariably smell and sunlight may also create problems by causing condensation within the tank. This condensate can eventually fall through the oil (water being more dense than oil) to the bottom of the tank. Once on the bottom, this condensate can flow into the stove (which may damage the metering valve) or during severe weather may freeze and stop all flow from the tank.

The majority of delivery vehicles are equipped to deliver several yards beyond the limits of vehicle access, but expecting the heavy and unwieldy delivery hose to be cleanly threaded through border plants and ornamental hedges is unrealistic. Select a location that allows a straight and uncluttered path from delivery vehicle to storage tank.

To provide the stove with fuel at the correct pressure, it will be necessary to have the tank outlet at the maximum 3 meters (118 inches) above the stove's metering valve top. If this limit cannot be achieved, a secondary reservoir with a lift pump or level control valve must be installed. Refer to the relevant building regulations and local codes for any restrictions on tank position relative to buildings, hard structures and property boundaries.

Whatever type of tank selected must be equipped with two outlets, one to supply the stove and one at the opposite end to allow drain off any accumulated dirt or condensate from the tank. To facilitate this, the tank must be mounted at a slight angle away from the stove outlet end and towards the drain (0.8 inches for every 1 meter of tank length).

Check local codes for additional fuel oil tank installation requirements. Never underestimate the weight of a full oil tank and make every effort to meet or exceed code for all support structures. These requirements may vary based on tank material.

Tank Fittings and Pipework
An isolation valve must be installed directly at the tank outlet to allow for maintenance of the fuel supply line. These components should include a metal bowl oil filter installed such that adequate room for the removal of the sediment bowl and filter element are possible. The filter element should be cleaned or replaced at least annually. Plastic bowl oil filters are not recommended for outdoor unprotected situations as they can be fragile.

As mentioned, please refer to all applicable local codes when considering the supply line from the oil tank to the stove carburator. Often, this type of line is either steel or copper. Both materials have unique installation limitations and maintensnce concerns. The use of plastic covered copper pipe is recommended if it meets local codes because it is easily installed and virtually maintenance free. The use of galvanised steel pipe is prohibited as zinc reacts with the fuel oil.

It may be desirable to bury the supply line depending on the installation. While this is perfectly acceptable in most areas it must be done with the utmost attention paid to the protection of the pipe itself. Once buried, it will not be possible to inspect the line for leaks so extra care must be taken during installation.

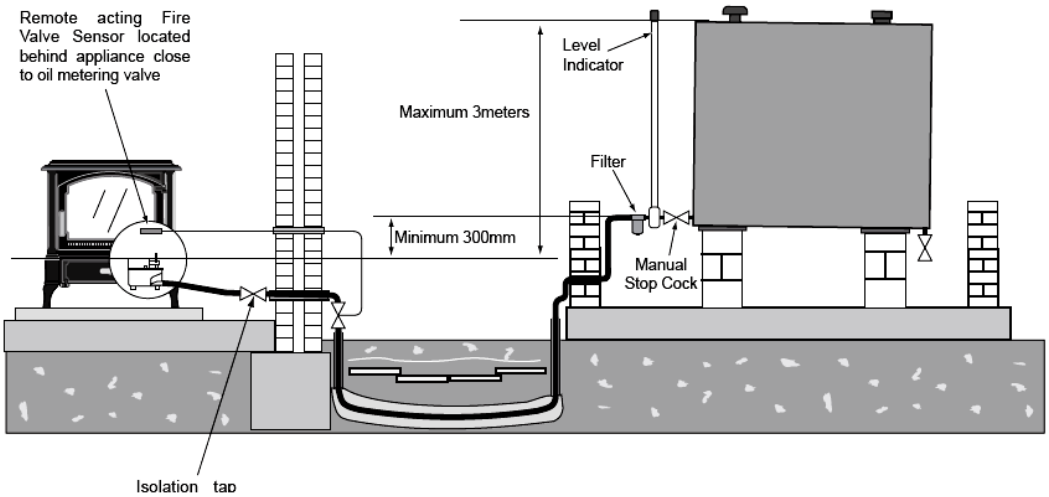
Before the pipeline enters the building, a fire valve should be installed which will shut off the oil supply in the unlikely event of the stove overheating. This valve is controlled by a remote sensing element situated within or

near the stove and above the metering valve. Finally, another manual isolation valve should be positioned as close to the stove as possible to enable all supply to be turned off for stove maintenance.

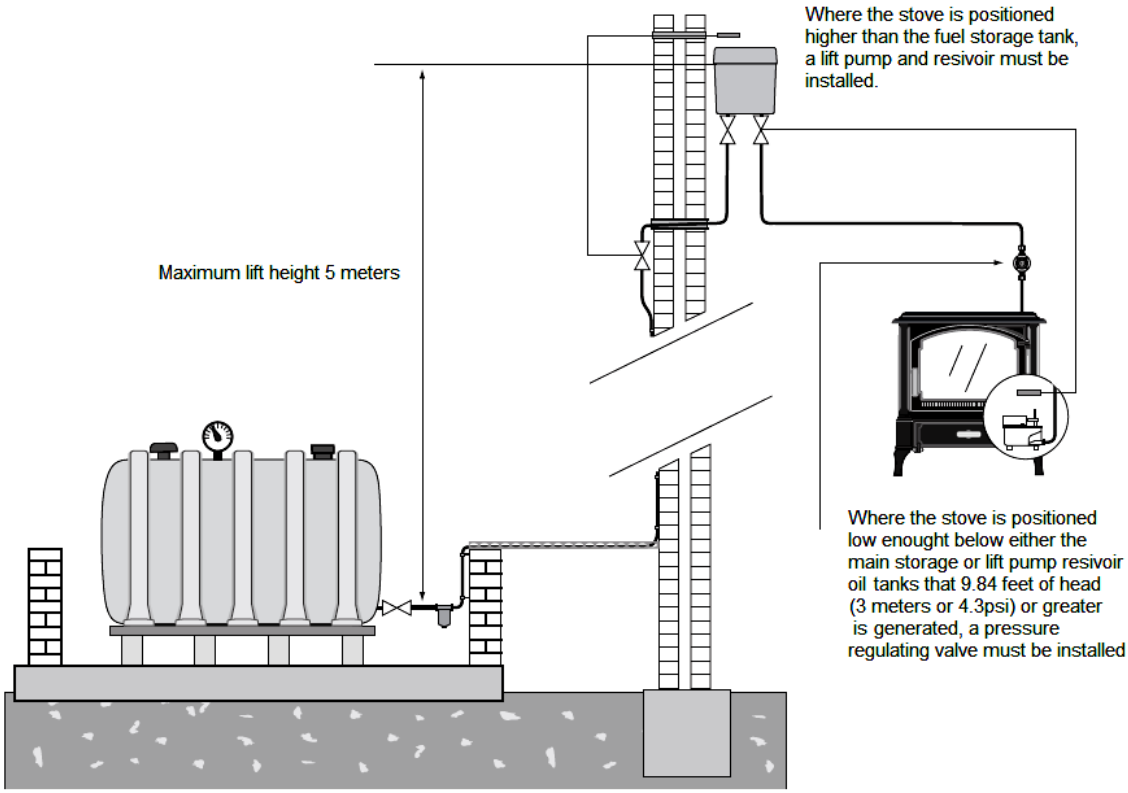
It some areas, it may be possible to bury oil tanks or install them in basements. It is important to remember that any with any oil installation, the simpler the system can be desgned and the shorter the sullpy line can be kept while still meeting local codes will will ensure more problem free operations. Also, oil installations should only be performed by suitably qualified and experienced personnel, with the written approval of your insurance company.

Typical Oil Tank Installations

Gravity fed to the stove

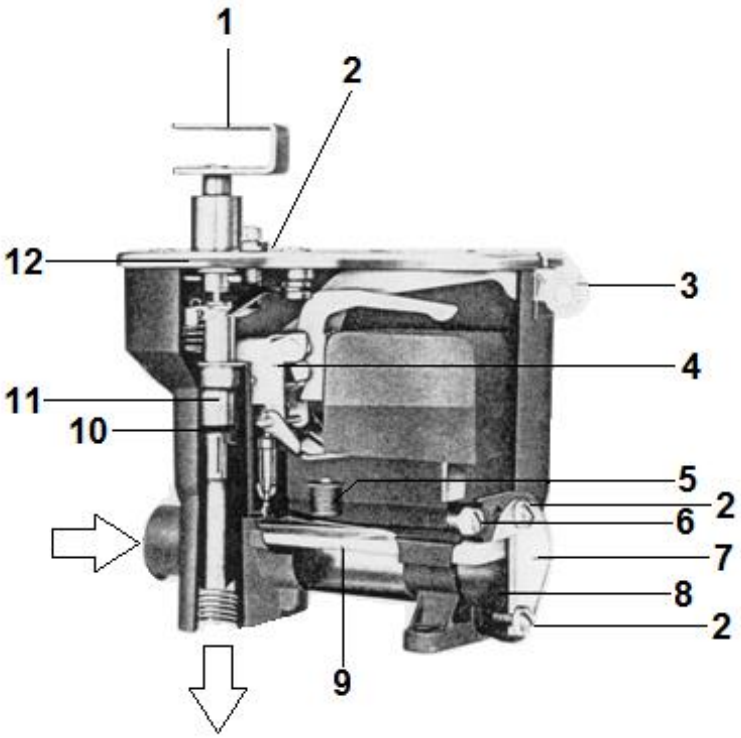


Using an oil lifter pump where tank level is below the height of the stoves oil inlet

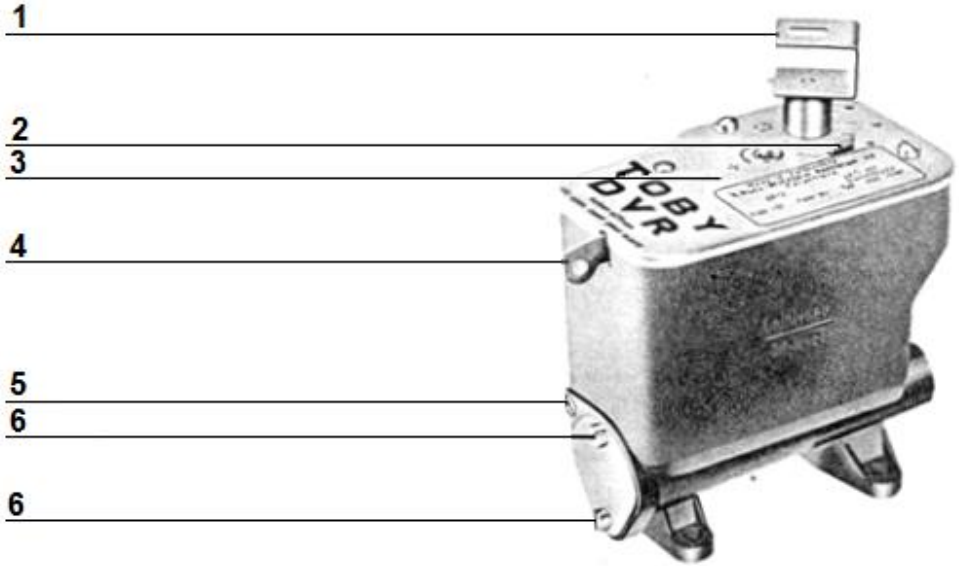


THE CARBURATOR

Model Toby DVR5



1	Control knob
2	Attachment screws (5 in number)
3	Control lever
4	Float assembly
5	Anti-overheating Safety device
6	Draining screw with washer
7	Filter lid
8	Filter washer
9	Flat filter
10	Washer
11	Metering stem with spring and washer
12	Lid assembly

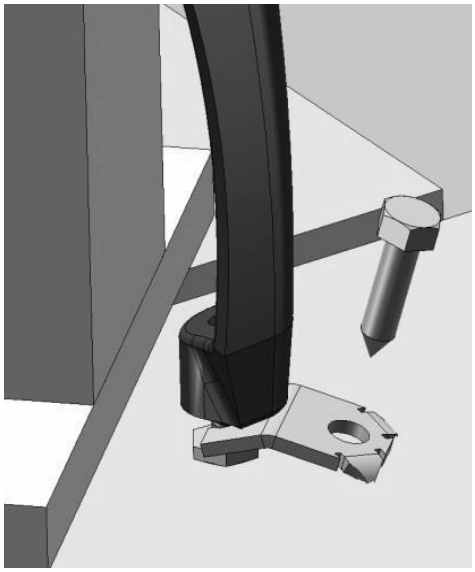


STOVE INSTALLATION

Installation of the S31 and should not be performed on high wind days, and should only per perfomed by qualified technicians having the appropriate testing equipment and working knowledge of the relevant standards and regulations. The customers who will operate the stove are an essential component of any installation. Ensuring they understand the operation of the stove, its controls and what to expect from the installation, whether simple or complex, is a significant aspect of thie installation process.

Bolting the stove to the floor

Some installations will require that the S31 is securely fastened to the floor. In these instances, simply reuse the clips that mount the stove to the shipping pallet. (As shown in the figure below) After the stove has been properly leveled slide the clip around the head of the levelling bolt and fasten the clip to the floor.



Pre Installation Checks

The installation should be inspected to ensure the work is complete and the workmanship is satisfactory. No stove should be operated if any part of the installation does not comply with the relevant standards and regulations.

The oil tank should be examined to confirm there is a supply of the correct grade of oil and that a filter and working isolation valve are installed. Having verified that the oil supply line to the stove is complete and that the fire valve is closed, the tank isolation valve should be opened and the pipe inspected for leaks. Initially, the pipe into the inlet of the metering valve should be disconnected, the fire valve opened and a minimum of a half gallon of oil should be allowed to flow through the supply line into a suitable receptacle. If dirt or water is present in this sample additional oil should be allowed through the supply line until it is free from contaminates. Reattach to the supply line to the inlet of the metering valve and locate the stove's combustion pressure testing point.

If a boiler is installed, all the control systems and valves should be set to allow for the system heating. The draught stabilizer should be examined to ensure it opens and closes freely before lighting the stove following the lighting instuctions.

Carburator

The carburator has been preset from the factory. It will however need to be adjusted for correct flame and based on your fuel (#1 Oil, #2 Oil, or Kerosene) and your particular flue conditions.

The carburator intertnals perform three operations:

- a float valve regulates the depth of oil held in the body of the carbutator
- meter fuel supplied to the burner (rate is adjustable)

- a safety float valve will isolate the fuel should the levels within the valve body become too high.

The safety float will cause the arming lever to “trip” whenever the fuel levels become too high. Once “tripped “, resetting the arming lever may need to be done several times before the fuel level within the valve falls sufficiently to allow reliable operation. Severe vibration can cause ripples on the fuel surface and lift the float. Because of this, it is possible for the vibration caused by heavy passing traffic to shut off the valve.

No attempt must be made to adjust the control float or its level. Adjustment of this control is impractical and may even be dangerous.

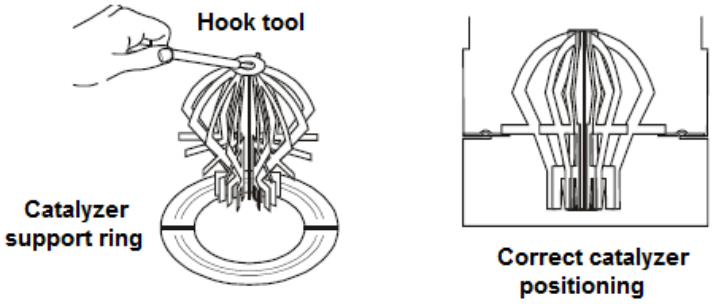
As mentioned, the firing rate of the burner is regulated by carburator. Having set the extremes of low and high firing as detailled in the Start Up section above, the firing rates are proportioned as indicated by the 1-6 settings on the valve top.

LIGHTING AND OPERATING

-Due to High Surface Temperatures Keep Children, Clothing, and Furniture Away!
-DO NOT ATTEMPT TO START THE BURNER WHEN EXCESS OIL HAS ACCUMULATED, OR WHEN THE BURNER IS HOT.
-ALWAYS KEEP THE VALVE SHUT OFF WHEN THE BURNER IS NOT OPERATION.

BEFORE LIGHTING
- Check that the valve on the tank is open,
- Check that the setting lever on the float chamber is in the upward position.

LIGHTING THE STOVE MANUALLY
1. The oil supply to the stove should be turned on and the oil metering valve control knob should be turned off which is indicated as position “0”.
2. Open the front door of the stove and lift out the catalyser, taking care not to disturb the catalyser support ring. Examine the burner bottom for evidence of oil. If the burner is dry, lighting may proceed. If oil is present, no attempt should be made to light the stove until this oil has been removed.



3. Turn the oil control knob turned to position “1”. Oil will now enter the burner and should be allowed to pool in the burner bottom unitl about the size of a soda can (65mm diameter).
4. Return the control knob is to the “0” position.
5. Place a small piece of twisted paper approximately 2” in diameter (or a small amount of alcohol-gel) on the burner bottom in the center of the oil pool.
6. Light this paper (or alcohol-gel) with the extended lighter provided with the unit.
    a. When finished using the extended lighter, store at least 2 feet away from the stove and the venting system
7. Reinstal the catalyzer, as shown above and close the stove door. The oil metering valve should now be turned to position number “2” and the stove left at this setting until the burner, stove and flue have warmed sufficiently to allow stable burning at higher settings (½ to1 hour dependent upon flue construction).

Post-Ignition Start Up (First Fire Only/Commisioning)

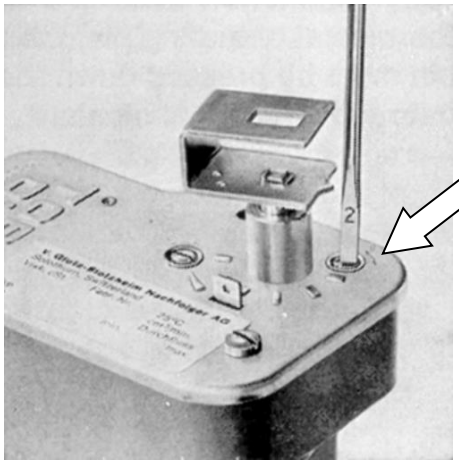
Shortly after the stove is lit, a stove air pressure reading should be taken and the pressure monitored at fifteen minutes intervals to ensure the stove and the flue are operating safely with sufficient air. As the stove and flue warm, the supply of air being induced into the burner will increase, and it will be possible to increase the stove's burn rate incrementally until the stove is running at maximum output. The entire stove and flue should be allowed to reach normal operating temperature.

Reduce the control setting to No.1 (Low setting) After 5-10 minutes take a draft reading. This reading should be within the requirements discussed in the Flue Pressure Adjustments and Requirements section of this manual. Once the correct low fire chimney draft been achieved gradually increase the setting on the control allowing 5-10 minutes after each increase. Once the control in is in the highest setting (No. 6) allow the unit to run for 10-15 minutes. Adjust the draft stabalizer weight so the flue draft meets the required readings. You now have the flue draft settings dialled in.

Carburator Adjustments:
With the chimney flue settings correctly set, the oil flow rates will need to be checked. This is normally checked by the visual size of the flame. All adjustments to the control settings should be followed by 5 minutes of undisturbed burn to confirm the change.

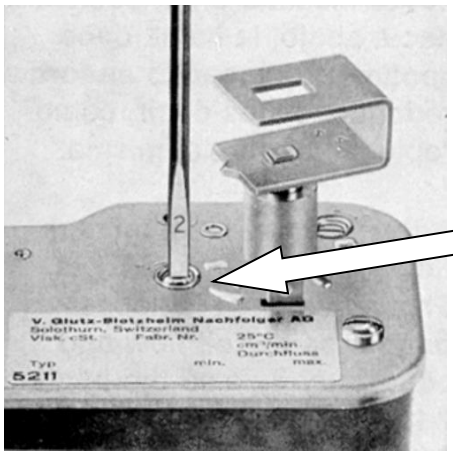
If needed, adjust these screw no more than one quarter of a turn at a time and allow the stove to stabilize for ten minutes before making a further adjustments. Both screw and plate should be marked to provide a reference of the original screw position.

High Setting:, Allow the stove to run at maximum output for at least 10-15 minutes. The flame should be bright yellow and with the flame tips just short of the firebox ceiling. The base of the flames should still be blue. The catalyser should be glowing red. If the flame is too high and allowed to impinge on the firebox ceiling, soot will be generated. Adjust the "high-fire screw" on the control to achieve the proper flame.



High Setting Adjustment Screw
-Clockwise to decrease the flame.
-Counter clockwise to increase the flame

Low Setting: Turn the control knob to the low setting and allow the stove to burn for a minimum of 15 minutes. The flame on low should be a small and completely blue. The catalyser should be a dull red. If there is any yellow flame present then the "low-fire screw" must be increased until the there is only blue flame. At minimum output, the flue stabilizer will normally be fully closed. If the stabilizer is open in this condition, it is likely that further restriction of the flue will be necessary.

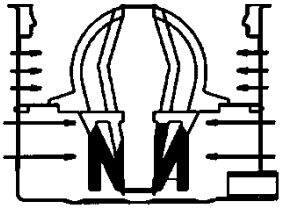


Low Setting Adjustment Screw
-Clockwise to decrease the flame.
-Counter clockwise to increase the flame

With a satisfactory minimum setting achieved, the stove should be turned to its maximum fuel rate and allowed to run for at least fifteen minutes before measuring the negative pressure and adjusting the draught stabilizer (if necessary). Once the maximum setting adjustments have been completed, the stove should be returned to and run at its minimum for thirty minutes. After this period, a pressure reading should be taken to ensure the negative pressure within the stove is acceptable. After setting the above parameters inspect the stove and oil delivery system one last time for any evidence of leaks.

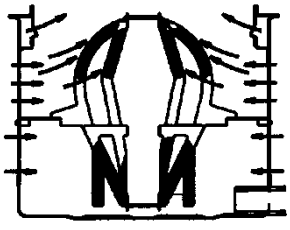
Failure to Ignite
The system will fail to ignite if there is insufficient or too much oil in the burner. If this occurs, check the setting of the carburator detailed in the MAINTENANCE section of this manual. Also, examine the arming lever and supply line for faults. Do not repeatedly attempt to ignite a burner if it fails to light. If no cause is found in the burner, contact a trained technician.

HOW THE FLAMES SHOULD LOOK FOR PERFECT COMBUSTION



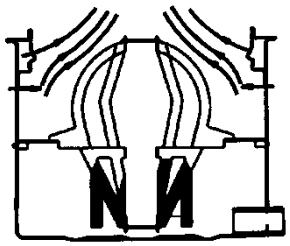
LOWEST SETTING

Small blue flames at the crown.
Blue spears in the pot.
Base of catalyser is red.
Draft has to be between 0.8 and 1.2 mm water column.



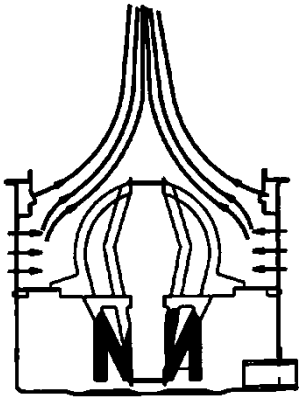
MEDIUM-LOW SETTING

Small blue flames developing from the crown.
Top of catalyst is dark red.
Blue spears in the pot.
Base of catalyser is "living red".



MEDIUM SETTING

Flames arrive up to about ¾ of the firebox.
The top of the flames is "white/yellow".
The base of the flames is blue.
Blue spears only on the top of the burner.
Base of catalyst is red.



MAXIMUM SETTING

A large, full-firebox flame reaching above the glass door frame, though not touching the top plate of the stove.
A narrow flame, mainly white/yellow.
The base of the flames is blue.
The base of the catalyser is red.
Draft : between 1.8 and 2.2 mm water column.

TIP: If your chimney is slow in establishing draft, excess oil may build up in the base of the burner pot. This causes a flame larger than normally expected at the low setting. Turn the oil control knob to the OFF position ("O"), allow the flame to reduce in height, then switch the knob back to low setting.

Extinguishing

1. Turn the control knob to position 0.
2. If the stove is to remain off for a long period of time, shut the reservoir tap off.

MAINTENANCE

Always allow the stove to cool before performing any maintenance operation.

Weekly

De-coking should be done weekly and can be done when the stove is turned off or running at minimum setting. Follow the instrustions below under **Normal Annual Service.**

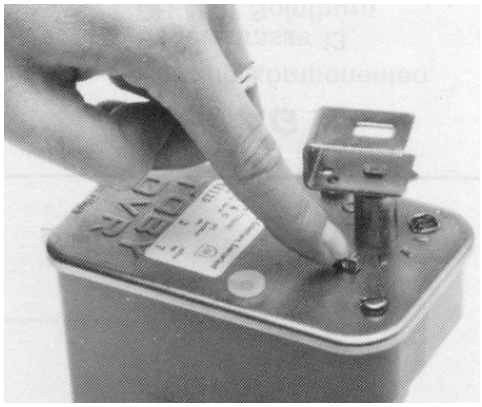
Every Two or Three months (depending on use)

Remove the catalyser and clean out any carbon deposits in the base of the burner**.** Also scrape carbon deposits from where the oil enters the burner. If necessary, use a glass cleaning solution to wash the glass. Replace catalyser on its support in the burner.

Normal Annual Servicing

As with all mechanical devices it is necessary to clean the TOBY oil controls occasionally. As a rule, every 1-2 years meets normal requirements. If particularly dirty fuel oil is used, additional cleaning may prove necessary. The following sequence should be carried out during the annual service:

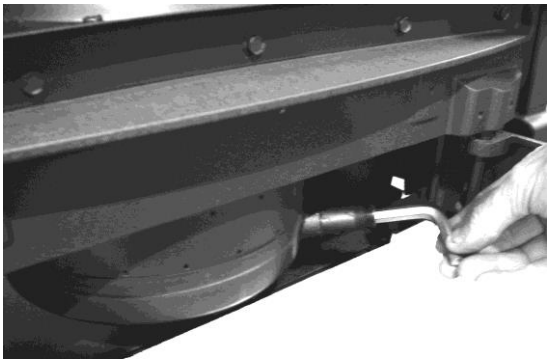
1. Tap the actuating pin with the control knob set at the highest position. In this way, any slight accumulation of dirt in the metering stem slit will be removed.

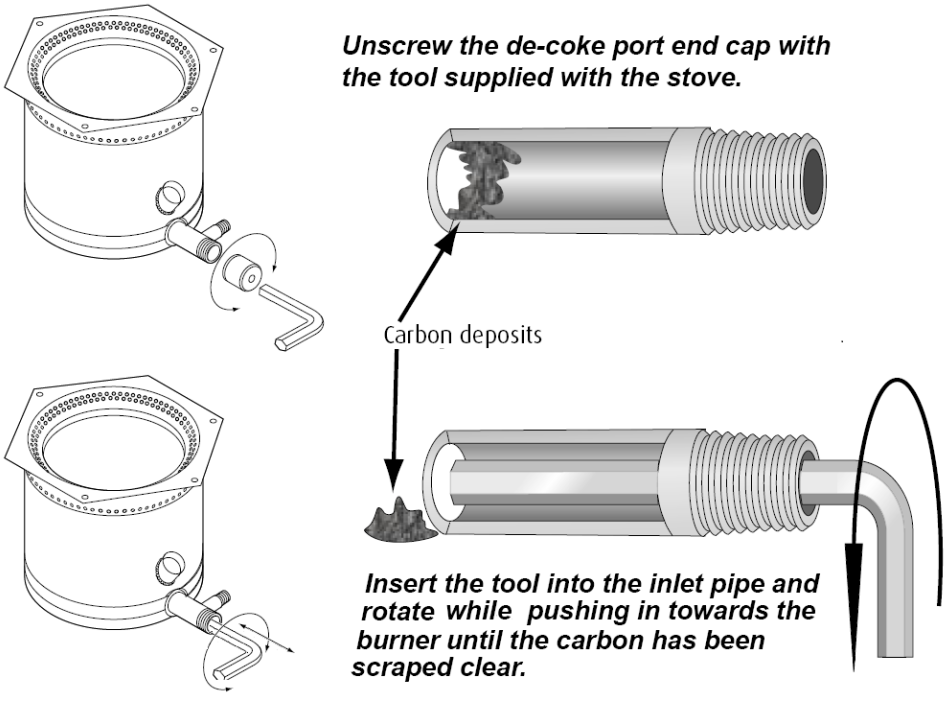


2. Remove the oil coke from the burner feed valve so that the fuel can flow unobstructed to the burner.

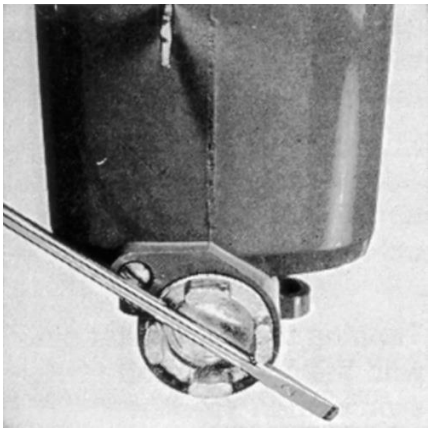
De-Coking using the Allen Key Tool

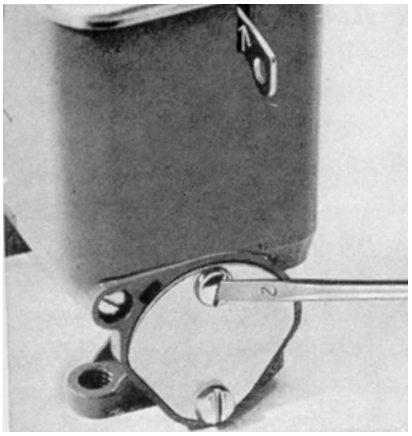
This operation must only be carried out with the stove TURNED OFF and COLD. The de-coking and inlet pipe are located behind the lower door and to the right hand or left hand side of the burner pot. Remove the end cap with the tool supplied with the stove. The tool is then inserted into the inlet pipe rotating it as it is pushed in towards the burner, until the cardon deposits have been scraped clear of the inlet.



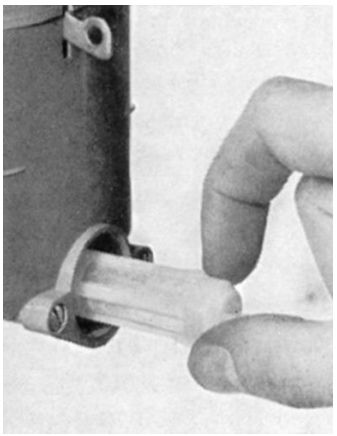


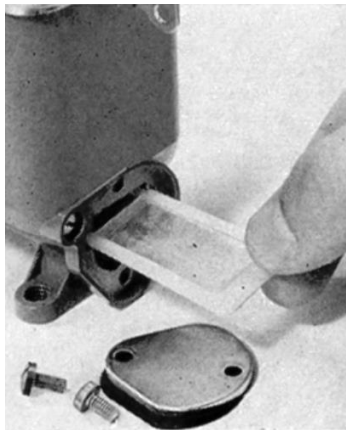
3. Remove and clean the filter (Diagram 4-6), and refit it.

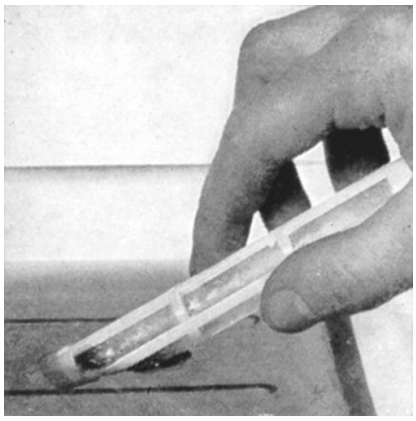




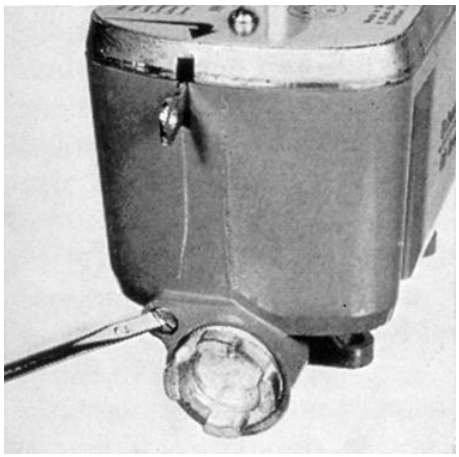
Remove the filter screws and clean the filter in fresh fuel oil, benzine, petrol, kerosene or hot water.

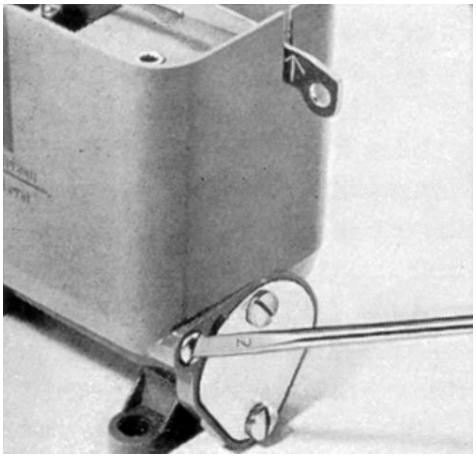






4. Remove the draining screw and rinse the oil control through with fuel oil from the tank until clear oil emerges at the point of drainage. In the case of models with no draining screw, the fuel oil must be removed from the interior of the oil control by means of a suction pump. Note: use only a soft pipe inside the oil control to prevent damage to any of the interior components.



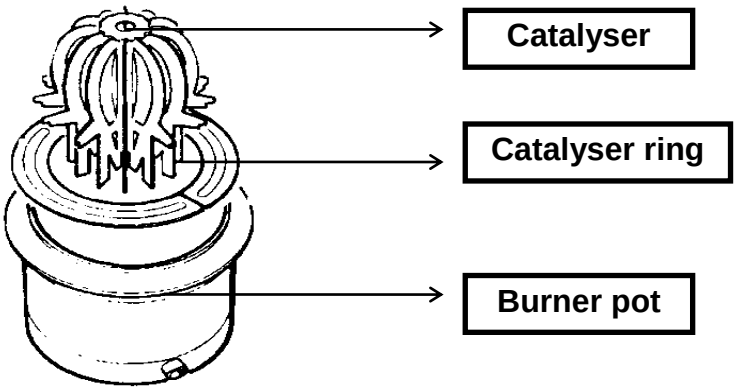


5. If water should be found inside the oil control, it is advisable to remove the pipe between the oil control and the burner and to clean it. After the above-mentioned operations have been carried out, a trial run lasting at least 15 minutes must be made with the device set first at low and then at high (control knob position 1) and

should this trial run not prove satisfactory for reasons of the oil flow or the proportions between the fuel and the combustion air, the oil flow is to be adjusted to the viscosity of the oil and/or the available flue draught or, if necessary, other more far-reaching adjustments made in the oil control itself. The measures to be taken in this case are described under «Oil Flow Adjustment».

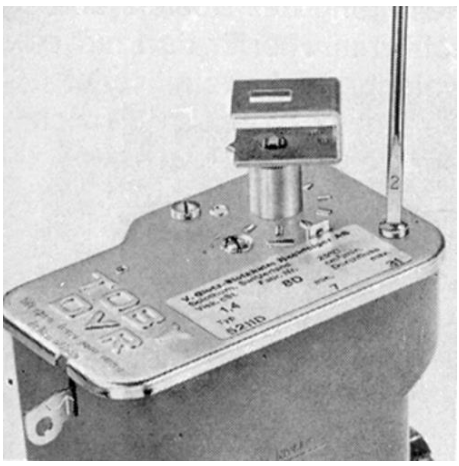
Annual Maintenance

6. The catalyzer and support ring should be removed from the burner and lightly brushed to remove soot. Inspect both for damage and replace as necessary.
7. The flue should be examined for evidence of soot and where this is evident the flue should be swept. Inspect all flue joints and re-seal where necessary.
8. Vacuum stove to remove all soot and debris.
9. Remove the drip tray drip tray and clear of all dirt and fluff.
10. Examine the burner bowl. Gently remove any deposits adhering to both the sides, bottom and fuel inlet.
11. Clean the glass using only vinegar and water. Replace if damaged.
12. Examine all gasketing and replace where necessary.
13. Inspect the door, hinge and locking mechanism for damage.
14. Examine the stove body for damage.
15. Examine the carburator and control knob extension for wear or damage.
16. The oil storage tank should be examinated for leakage, the filter removed and examined for evidence of contamination before being cleaned or replaced.
17. The oil supply pipe line and any valves and filters should be examined and cleaned or replaced as necessary.
18. Examine the oil valve and fittings for evidence of leaking.
19. The catalyser should be examined for signs of deterioration and black carbon, which indicates poor flue draft. The red oxidation must **not** be cleaned off as this aids efficient burning at low settings.
20. The catalyser and support ring should be reassembled, the burner lit and the stove and flue allowed to reach operating temperature.
21. Measure and record the draft reading at both low and high fire and make adjustments to the draft stabilizer as necessary.
22. All remotely operated thermostats and timers systems should be verified as working correctly.
23. If the operation of the appliance is suspect follow and complete the commissioning instructions.

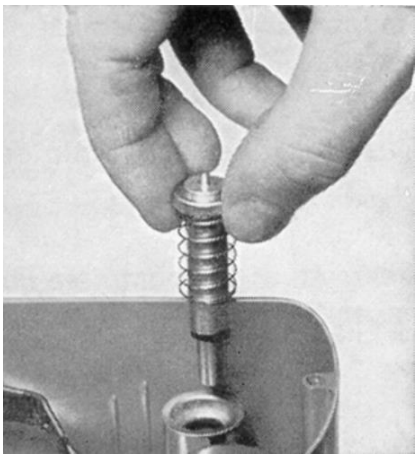


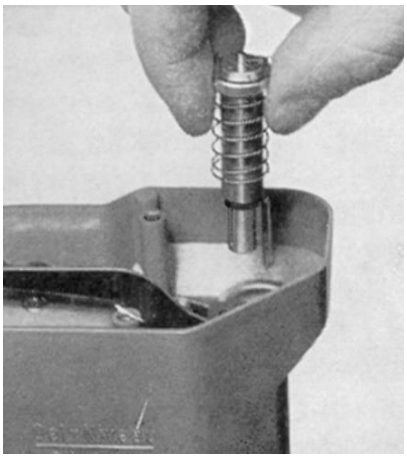
Oil Flow Adjustment (Only if Required)

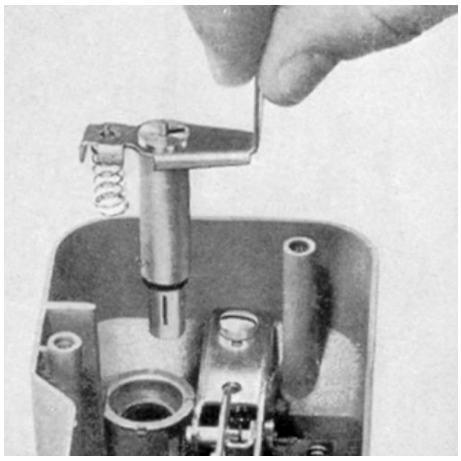
See **Carburator Adjustments** section



Removal of the complete lid assembly.







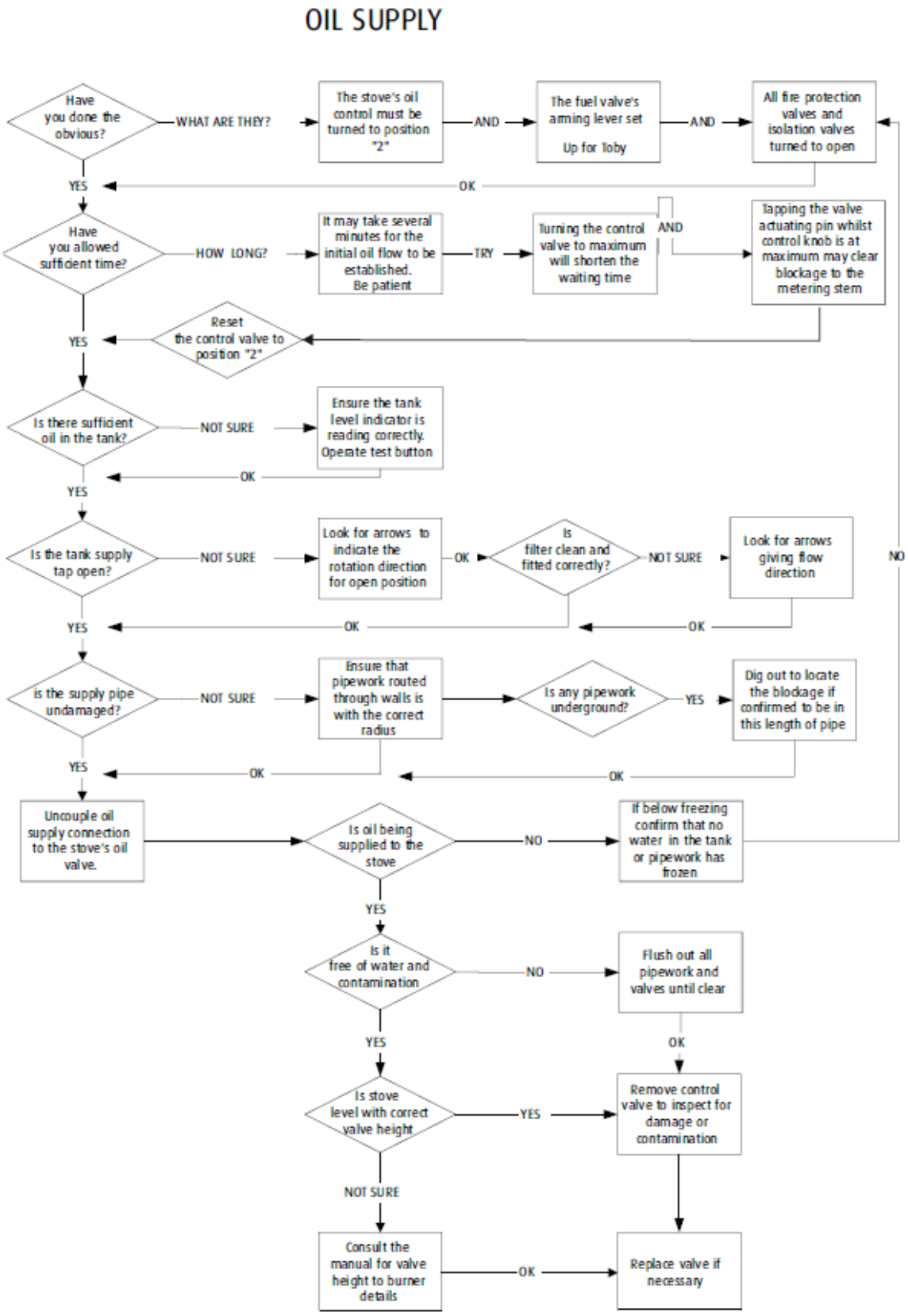
Removal of the metering stem.

Dealers Name: _____

Address: _____

Dealers Phone Number: _____

TROUBLESHOOTING



Burner Symptoms

1. Oil found in bottom of burner before burner control knob turned on.
2. No oil appearing in burner bottom when control knob turned on.
3. Smoky flame when lit.
4. Smoky when on low setting.
5. Smoky when on high setting.
6. Burner extinguishes on low setting.
7. Burner extinguishes after long periods on low setting.
8. Burner extinguishes in high winds.
9. Burner extinguishes and will not relight.
10. Burner noisy on high fire.
11. Burner flame size reduced on high setting.
12. Glass sooting.
13. Smell of oil coming from stove.
14. Smell of smoke or soot coming from stove.

Burner Faults

1. Carburator having been left turned on for a long period without the burner being lit.
   Oil metering valve bypassing float control.
2. Arming lever not set.
   A manual valve in the oil supply line shut.
   Fire valve tripped.
   Faulty carburator.
   No oil in tank.
   Water in the carburator and/or the supply line.
   Air lock in supply pipe.
   Blocked carburator filter.
   Water in the supply line which has frozen.
3. Blocked flue.
   Flue too cold.
   Carbon deposits accumulating at oil entry port.
   Wind conditions causing the air pressure to be out of limits.
   Incorrect grade of oil in the burner.
   Air stabilizer not shutting.
   Stove door not closed.
   Faulty or badly positioned catalyzer.
4. Any of the faults in « 3 ».
   Faulty sealing rope on door or top plate if fitted.
   Dirt in the bottom of the burner.
5. Carburator calibrated to give incorrect oil flow.
   Flue not hot enough.
   Flue restricted or blocked.
   Flue stabilizer incorrectly adjusted.
   Faulty sealing rope on door or top plate if fitted.
   Dirt in burner.
   Faulty or badly positioned catalyzer.
   Flame impinging on stove body.
6. Unstable draught conditions.
   Faulty draught stabilizer.
   Incorrectly calibrated low fire setting on the carburator.
   Faulty carburator.
   Faulty or badly positioned catalyzer.
   Vibration to the carburator causing the arming lever to trip.
7. All of the faults listed in « 6 ».
   Dirt in the burner.
8. Abnormally very high and gusty wind conditions.
   Faulty draught stabilizer.
9. No fuel supply.
   Tripped fire valve.
   Arming lever tripped.

Aquastat tripped.
Water in fuel.
Blocked fuel supply.
Damaged fuel supply.
Valve in fuel supply inadvertently shut.

10. Carburator grossly out of calibration.
Stove door having been opened for a period with the burner lit.
Draught stabilizer unable to cope with high flue draught.
11. Burner fuel inlet requires decoking.
Carburator driven to low setting by aquastat or flexitemp.
Thermostat pin on carburator sticking.
Stabilizer closed
12. Flue blocked.
Dirt in the burner.
Incorrect grade or contaminated fuel.
Stabilizer out of adjustment.
Faulty or miss-aligned catalyzer.
Lack of ventilation to the room or extraction fans with the property affecting the flue.
Door or top seals leaking.
Cracked or badly fitted door glass.
Fuel metering valve out of calibration causing flame impingement at high fire.
13. Oil leaking from any of the oil supply components.
Carburator becoming dangerously overheated and vaporizing large quantities of oil.
Burner poorly adjusted and leaking stove allowing products of combustion into the room.
14. Leaking or blocked flue.
Badly adjusted burner with flue or door seal leakage.

LIMITED WARRANTY

NESTOR MARTIN guarantees **the cast iron components for 10 years** and the **other components for 1 year** against any manufacturing or material defect.
Not covered by the guarantee : damage caused by improper use of the equipment, faulty siting, manipulation of the buffer, of a setting which should not have been entrusted to your approved installer or where annual maintenance has not been carried out.
The warranty excludes the door glass.

NESTOR MARTIN warrants the equipement to be free of defects in materials and workmanship. This warranty is subject to the terms specified below. This warranty gives you specific legal rights, and you may also have other right which vary from state to state. This warranty is limited to parts replacement and does not include any labor allowance. Any service charges for parts replacement are your responsability.
All warranty service and/or replacement of parts must be performed for you by an individual or servicing company, which has been qualified by NESTOR MARTIN distributors.
You may obtain the benefits of warranty coverage on a failed part by having the servicing company replace the part and return it to the NESTOR MARTIN distributor for inspection. If the failure is covered by warranty, there will not be any charge for the replacement part. Transportation charges for the shipment of the replacement part and the return of the failed part is your responsability. Any such warranty replacement or repair shall be subject to the terms and conditions of this warranty for the remainder of the original period of coverage. This warranty does not cover any failures or operating difficulties due to accident, abuse, misuse, alteration, misapplication, improper installation or improper maintenance or service. Any implied warranties of merchantability and fitness applicable to the equipment are limited in duration to the period of coverage of this express written warranty. Some states do not allow limitation on how long an implied warranty lasts, so this limitation may not apply to you.
NESTOR MARTIN IS NOT LIABLE for any special, indirect or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential changes, so this limitation or exclusion may not apply to you.
NESTOR MARTIN does not authorize any person or company to assume for it any other obligation or liability in connection with the sale application engineering, installation, use, removal, return, or replacement of its equipement, and no such representations are binding on Nestor Martin.