

Le Continental

Oil fired stove

Model 174 07 53

(ANSI/UL & CAN/CSA approved)



Description of the appliance

Installation instructions

Operating instructions

Spare parts

Warranty certificate

Document n° 952-3 EN ~ 02/03/2000

Français

English

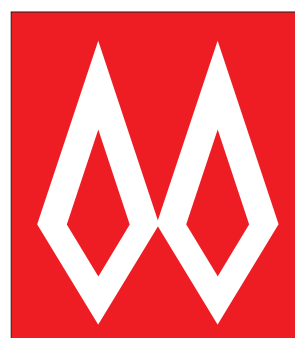
Norsk

Technical manual

to be saved

by the user

for future reference



FRANCO BELGE

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RC Hazebrouck 445750565B
Subject to modifications

FRANCO BELGE congratulates you on your choice.
 FRANCO BELGE, which has been granted the ISO 9001 certification, guarantees the quality of its appliances and is committed to meet its customers' needs.
 FRANCO BELGE, which can boast a 75-year experience in the industry of heating devices, uses state-of-the-art technologies to design and manufacture its whole range of products.
 This document contains instructions on how to install your appliance and and make full use of its functions, both for your comfort and safety.

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1. Description of the unit

1.1. Description

Flued oil stove with vaporizing burner (Norm EN1)

1.2. Optional equipment

▣ Ground vat

1.3. Specifications

Nominal Heat Output (NF D 35.001) . . . kW	6,5
. Btu/hr	26.000
Oil consumption at :	
- maximum speed l/h	0,81
. gal/hr	0,22
- minimum speed l/h	0,25
. gal/hr	0,066
Chimney draft required at :	
- maximum speed Pa	15
- minimum speed Pa	6
Weight kg	55

USA/CANADA - Connection to a L.VENT chimney :	
Nominal heat output Btu/h	19 600
. kW	5.75
Oil consumption at nominal speed . . USgal/h	0.198
. l/h	0.75
Chimney draft "w.c.g	0.06
. Pa	15

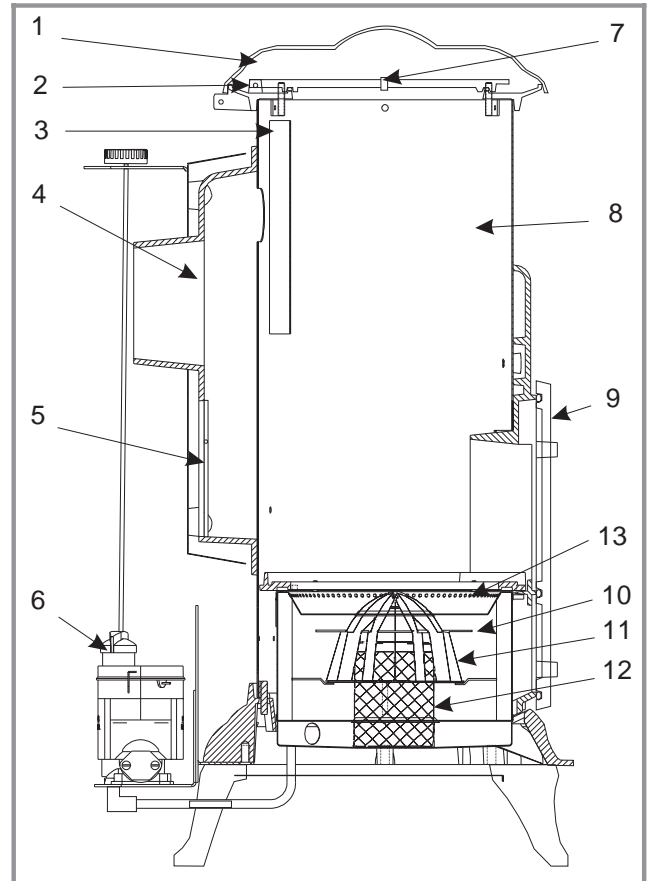


Fig. 1 - Description

- | | |
|-----------------------|------------------------|
| 1 - Cover | 8 - Combustion chamber |
| 2 - Top plate | 9 - Main door |
| 3 - Flue baffle | 10 - Catalyser ring |
| 4 - Flue box | 11 - Catalyser cover |
| 5 - Draught regulator | 12 - Catalyser body |
| 6 - Carburettor | 13 - Air inlet holes |
| 7 - Draught control | |

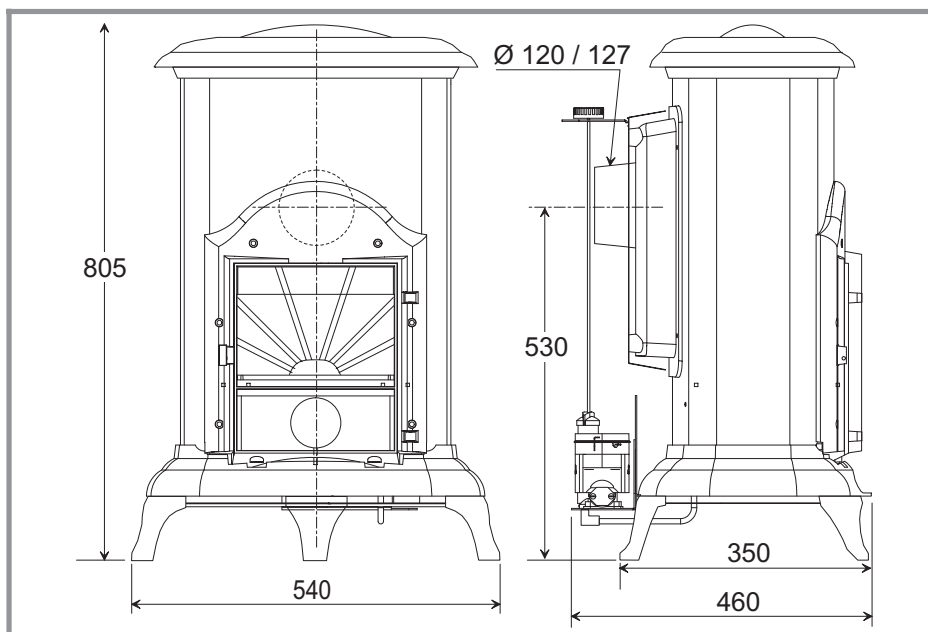


Fig. 2 - Dimensions in mm

- 805 mm - 31 3/4"
- Ø 120 / 127 mm - Ø 5"
- 540 mm - 21 1/4"
- 530 mm - 20 4/5"
- 350 mm - 13 3/4"
- 460 mm - 18"

1.4. Operating principle

Furnace oil is fed to the burner floor (fig. 1) where it is ignited by means of a firestarter. The heat produced by this flame brings the burner temperature to the required level to vaporize the fuel. Oil will only burn as a vapour not a liquid.

Room combustion air enters the burner through the air inlet holes (# 13, fig. 1).

In the center of the burner is the catalyser (# 12, fig. 1) which aids in vaporizing the fuel. When the stove is operation, the catalyser glows red. The stove should not be used with out both the catalyser (# 12, fig. 1), catalyser top (# 11) and ring (# 10).

A de-scaling lever (# 1, fig.8) can be pushed and pulled in and out as well as turning slightly at the same time to keep the inlet pipe clear of carbon buildup.

The stove float regulator contains a filter to trap impurities.

A safety lever controls fuel flow. Oil can only enter the float chamber when the safety lever is depressed.

Oil temperature variations will affect the oil flow into the float chamber. A float in the chamber raises the fuel level available to the burner.

The carburetor is also controlled by a control knob which turns from "0" (off) to "6" (high setting).

A draft regulator (# 3, fig. 7) ensures a constant air intake to the burner regardless of external factors.

2. Installation instructions

USA / CANADA : The installation of this stove must comply with state and local requirements and the standard CSA B139.

2.1. Position of the unit

- The position of the appliance must be chosen very carefully in order to obtain the best possible results for heat distribution.
- Position the unit to comply with the minimum clearances to combustible material. Minimum clearances are shown from the vertical portion of the chimney connector. Check that no overhead cross members in the ceiling will be cut. Reposition unit if necessary, being careful not to move closer than the minimum clearances.
- Outside air : For the oil stove to function properly, an adequate supply of combustion air is required.

2.2. Chimney

- Ensure that the flue has sufficient draught (refer to technical details).
- Minimum flue diameter, 10 cm (4" I.D).
- The chimney must be at least 4.5 m (15 ft high).
- The flue must not be shared with any other appliance.
- Downdraughts caused by obstacles close to the chimney top may sometimes be prevented by fitting an anti-downdraught cap to the top of the chimney.
- The chimney must have a constant cross section. Too large a flue could affect the chimney draught.
- The chimney must be soundly constructed, in order to prevent cold air infiltration.
- The flue must be well insulated, water and air tight. A chimney with a cold internal surface can prevent a good chimney draught and condensation will occur.
- The flue must be swept at least once a year.

2.3. Chimney connector

- The appliance must be as close as possible to the chimney. Avoid horizontal flue connection pipes which can dangerously restrain functioning of the appliance.

The connector pipe should be standard black painted or blued steel pipe of not less than 30 gage; 304 grade stainless steel of not less than 30 gage; or 1 mm

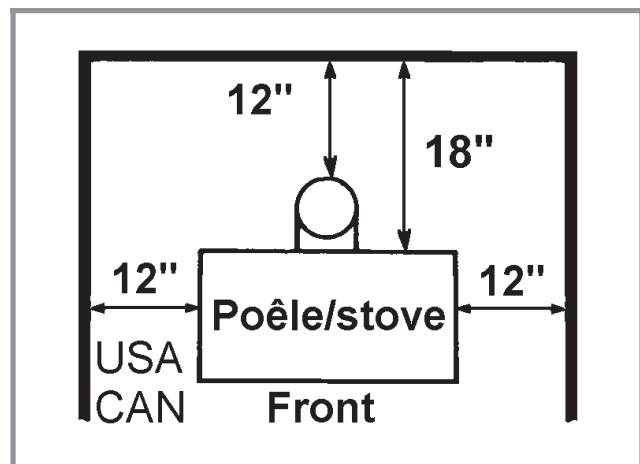


Figure 3 - Minimum clearances to combustible surfaces

viterous enamelled steel, with a maximum diameter of 5 inch O.D. - (127 mm). It is the installer's responsibility to conform to local building standards and requirements with regard to installation.

Single wall pipe may be utilized being careful to maintain clearances to any combustible surface. (fig. 3) Once the stove has been properly installed the chimney draught must be checked with a draught meter.

If the chimney draught is excessive or irregular, a draught stabilizer (barometric damper) must be installed to the connector pipe.

2.4. Connection to a L.VENT chimney

USA / Canada : The 174 07 53 appliance is certified to be connected to a 5" L.VENT chimney with its nominal heat output limited to 19600 Btu/h (5.75 kw) .This will be achieved by replacing the float-regulator (carburetor) (# 19 fig. 9).Please contact your dealer to have this alteration done.

WARNING. FRANCO-BELGE is not responsible for any incidental or consequential damages if this operation is not done.

2.5. Pre-utilisation check

Check, that the seals are in good condition, that the door closes correctly, that the glasses are not damaged.

2.6. Mounting the levelling feet

Fit the 3 screws and the 3 caps supplied (on the burner) into each leg of the stove (fig. 4).

2.7. Levelling

It is essential to ensure that the appliance sits level on the floor. Adjust the levelling feet. Use a spirit level across the burner pot to check the level (fig. 4).

2.8. External tank

When the stove is connected to an external or remote tank, it must be secured to the floor. The bracket is included (fig. 6).

A barometric fuel tank should not be positioned where it will be in the direct rays of the sun or adjacent to a source of intense heat.

If the tank is more than 8 ft (2,5 m) higher than the stove a pressure reducer must be installed on the oil line (see fig. # 5).

If the tank is lower than the stove a lift pump will have to be utilized (see fig. # 5).

A clearance of 6 " (15 cm) must be maintained between the external/remote tank and the stove.

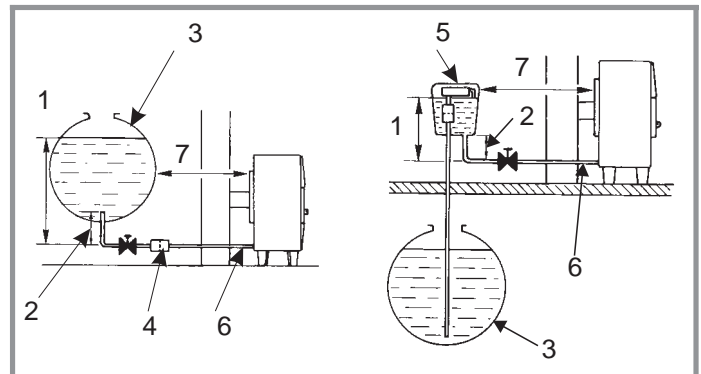


Figure 5 - Oil supply

- | | |
|----------------------|-------------------------------|
| 1 - 8 ft max. | 5 - Suction pump with reserve |
| 2 - At least 9,5 in. | 6 - Pipe Ø 3/8" O.D. |
| 3 - Oil Tank | 7 - 0,15m minimum |
| 4 - Filter | |

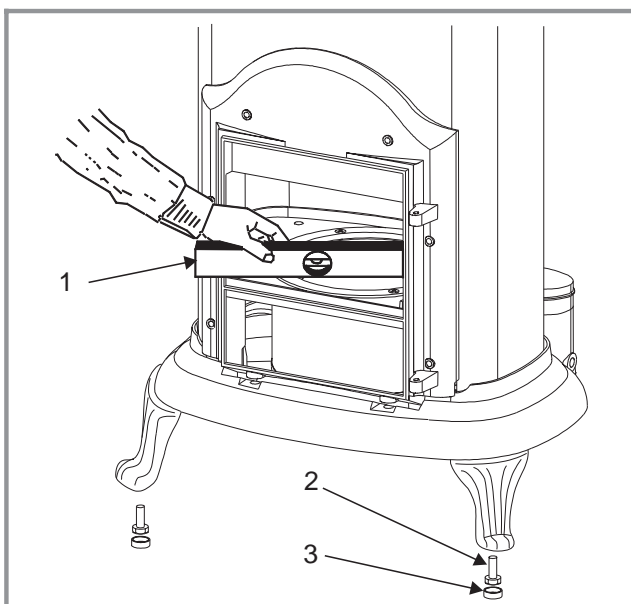


Figure 4 - Levelling

- 1 - Spirit level
- 2 - Screw
- 3 - Cap

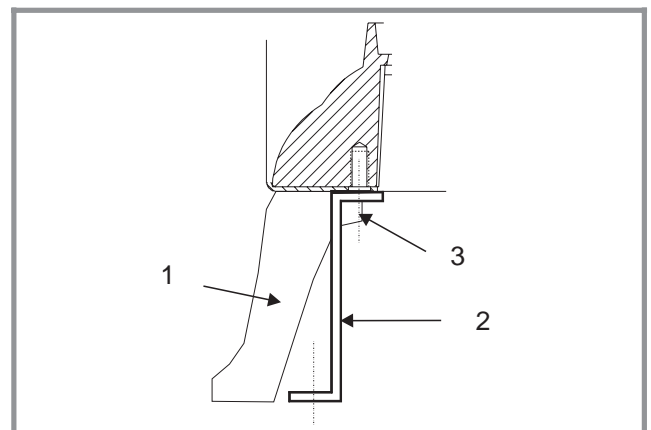


Figure 6 - Bracket

- 1 - Rear foot
- 2 - Bracket
- 3 - Foot fixation screw

2.9. Oil flow adjustment

The float regulator has been adjusted at the factory and should not need further adjustment. If the burner does not work correctly, check possible causes before readjusting the settings :

- Chimney draught
- Fresh air inlet
- Oil supply.

Low setting (Refer to fig. 7 , # 2) :

- set the regulating knob on "1" and let the burner run for a few minutes. The flame must completely cover the bottom of the burner and the catalyser body must be glowing red hot.
- if the flame is too small, the stove will soot up quickly ; increase the flame by turning the setting screw (# 2) clockwise.
- if the flame is too high, reduce the flame by turning the setting screw (# 2) counter clockwise.

High setting (Refer to Fig. 7 , # 1) :

- set the regulating knob on "6" and let the burner run for a few moments. The flame must be shaped like a cone and reach the upper part of the door.
- if the flame is too low, increase by turning the set screw anti-clock-wise.
- if the flame is too high, reduce by turning the set screw clockwise.

Please note - Very important : The adjustments of the float regulator are very sensitive. The high and the low setting screws must never be turned more than a 1/4 of a turn at a time in any direction from their initial setting. When making any adjustments, allow 3 to 5 minutes between adjustments to allow burner to stabilize to previous adjustment before proceeding, if necessary.

2.10. Chimney draught

Once the stove has been properly installed, the chimney draught must be checked.

The adjustment of the draught will be made with the barometric damper located at the back of the stove (# 3 of fig. n° 7).

The reading of the draught must be done once the unit is hot (minimum 30 minutes of use).

Refer to the specifications p. 3 for minimum draught requirement on mini setting and on maxi setting.

2.11. Maintenance of the Chimney

Chimney and chimney connector should be inspected at least once every three months during the heating season to determine if a soot build up has occurred. If soot has accumulated, it should be removed to reduce the risk of a chimney fire.

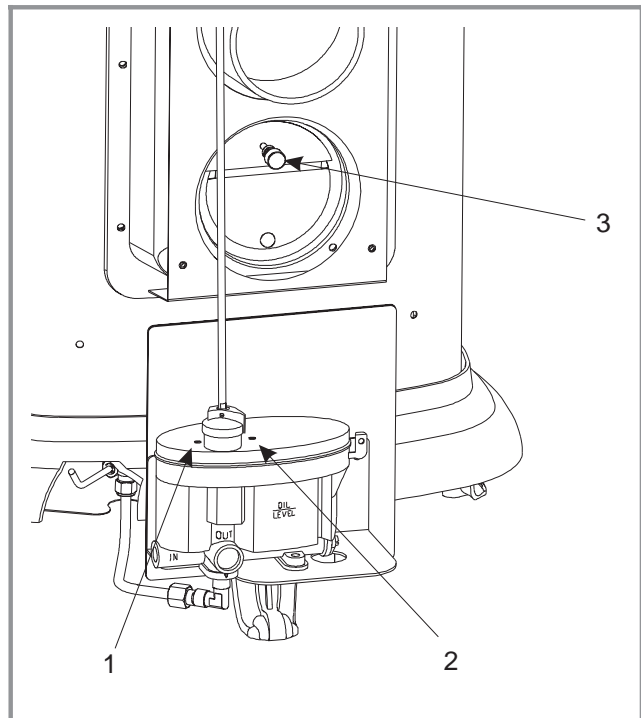


Figure 7 - Setting

- 1 - Adjustment screw for maximum setting
- 2 - Adjustment screw for minimum setting
- 3 - Adjustment of the draught regulator

3. Operating instructions

3.1. Fuel

Warning : Your stove is fitted with a specific float regulator for a specific oil.

▣ Fuel oil # 2 or fuel oil # 1

The fuel oil must be free from any dirt and water which could disturb the stove in operation.

3.2. Lighting procedure

- Be sure the control knob is to "0".
- Turn on oil supply,
- Push down gently on the safety lever (# 3 of fig. n° 8). This will allow the oil to flow into the regulator.
- Open the front door, and remove the catalyser from burner. Make sure the inside of the pot is clean thoroughly, and there is no oil accumulation.
- Place 2 tablespoons of methylated spirit or gelled alcohol in the bottom of the pot. Light the starter gel or methylated spirit with a fireplace match or long butane lighter. Place the catalyser back into the burner, being sure it is centered in the burner. Shut the main door.
- Allow the catalyser to heat approximately 30 to 45 sec.. Turn dial to "1" position.
- Allow 10 to 15 minutes for oil fire and draught to stabilize. The catalyser should glow red before adjusting the control knob to a higher setting,

3.3. Operating procedure

- Allow 10 to 15 minutes after lighting to adjust the control knob to a higher setting, usually between a "2" and "4" setting.

When increasing the heat output, move the control knob only 1 number, allowing 5 minutes between moves for the flame to re-adjust to new setting..

- If the burner stops during operating, immediatly turn off the control knob (position "0") and wait until the burner is completely cool before repeating the lighting procedure.

3.4. Shutting down

- Set dial to the "0" position,
- Raise the safety lever of the regulator.
- Allow the flame to burn out completely before opening the door.

3.5. Recommendation

- The adjustment of the stove has been made at the factory and checked by your installer. Any anomaly of operation should be reported to him at once.
- This room heater is a high heat producing appliance and may cause severe burns if touched on the glass front door, or on top directly over the burner - keep children away - Do not use for drying wet clothing.

CAUTION : Never light the burner if there is oil in the burner pot. Clean out oil before lighting.

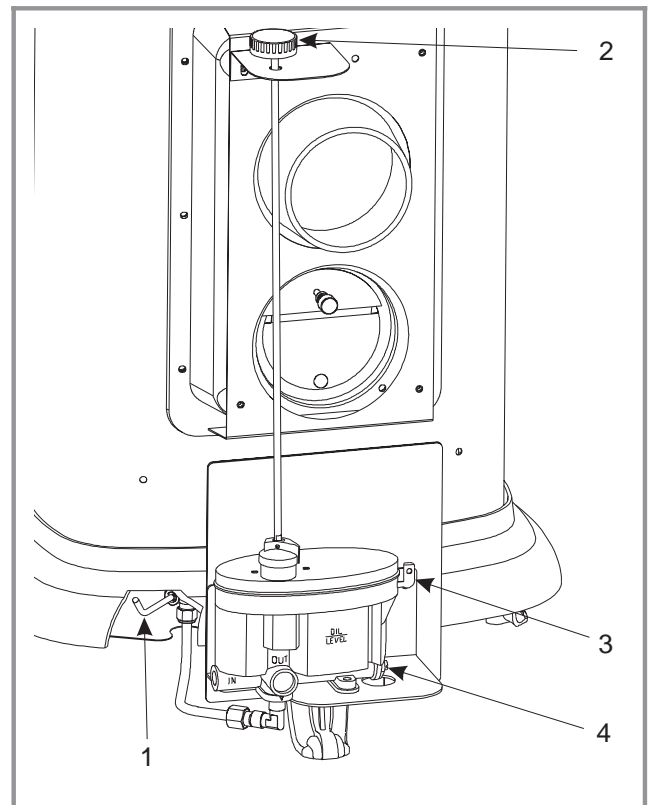


Figure 8 - Operating devices

- | | |
|----------------------|--------------------------------|
| 1 - De-scaling lever | 4 - Access to regulator filter |
| 2 - Regulation knob | ter |
| 3 - Safety lever | |

Racing : An audible fluttering sound is an indication that there is too much oil in the pot burner and/or a lack adequate draught.

- turn off oil supply and set the control knob in closed position -0-, until fire has decreased to proper burn rate.

- **Do not overfire :** If the stove or chimney connector starts to glow, you are overfiring.

3.6. Maintenance of the stove

- **Every week :** operate the de scaling lever (# 3 of fig. 8) :

- Pull the rod, then push the rod in rotating 360 degrees two or three times (CAUTION : The rod is HOT).

- **Every 3 or 4 months :** Clean the burner completely.
- Remove all the parts of the catalyser (# 10, 11, 12 of fig. 1).

- Using a soft bristle brush (a small clean paint brush), carefully brush off the catalyser. Loosen any carbon soot from the bottom of the burner with a putty knife, and vacuum clean. Ensure that the small air holes in burner are free of carbon.

- **At least once a year / End of heating season :** Clean or replace all the oil filters in the oil supply line.

To clean the filter of the float regulator :

- set the regulation knob in closed position "0",
- turn off the tankvalve or the valve of the oil supply line,
- raise the safety lever of the float regulator,
- place a small container (or a small rag) under the

regulator filter opening in order to collect the oil contained in the regulator,
 - remove the filter cover plate located under the regulator (# 4 of fig. 8) with a screwdriver,
 - remove the tubular filter from the regulator. Clean, if ne it with oil using a soft brush, never a wire-brush,
 - replace the filter in the regulator, install the cover plate and secure with the screw.
 • Clean all the enamelled panels of the stove with a dry or slightly damp soft cloth.

• Use a soft clean cloth to wipe the front glass when the unit is running at a low burning rate. When the main door is opened for cleaning, the flame will be disturb, and turn to a yellow flame. Clean quickly, but gently. Close the door, the flame will return to a normal burning position.

N.B. :The appearance of cracks when burning the enamelled units is quite usual and tends to disappear when the appliance is cooling down. It should not be considered as a defect but rather as a patina of the enamel which does not affect its quality nor its service ability.

3.7. Trouble shooting



: This sign means that you should asked for a qualified engineer to do the work.

SYMPTOM	PROBLEM		-TEST SOLUTION
<i>Flames extinguish during lighting.</i>	<ul style="list-style-type: none"> ▣ Very cold chimney. No draft established. 		<ul style="list-style-type: none"> — Leave door ajar until fire has caught. - Check air supply in the room.
<i>Fire extinguishes once firestarter has burnt off.</i>	<ul style="list-style-type: none"> ▣ Fuel tank is empty. ▣ Fuel valve is closed. ▣ Main regulator float not engaging. ▣ Control knob is set on "0" 		<ul style="list-style-type: none"> — Fill tank. — Open valve. — De-press the safety lever. — Adjust control knob to "1".
<i>Fire extinguishes during use.</i>	<ul style="list-style-type: none"> ▣ Fuel tank is empty. ▣ Insufficient draft. 	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> — Fill tank. — Call your installer.
<i>Flame is excessely large, smokey and sooty.</i>	<ul style="list-style-type: none"> ▣ Fuel adjustment made too quickly. 		<ul style="list-style-type: none"> — Return control knob to "1"; wait for normal combustion. (catalyser should glow red) Wait 5 to 15 minutes between each adjustment.
<i>Stove burns noisily, extinguishes and relights itself.</i>	<ul style="list-style-type: none"> ▣ Burner contains excess fuel. ▣ Insufficient fuel. 		<ul style="list-style-type: none"> — Adjust to lower setting. If problem persists call your installer. — Check that the de-scaler, the regulator filter and burner pot are cleaned.
<i>Fire smokes.Soot build up noticed. Flame imbalance</i>	<ul style="list-style-type: none"> ▣ Insufficient air supply. ▣ Downdraft or blockage in chimney. ▣ Oil flow is too low on 1 setting. ▣ Stove is not level. Flame imbalance. ▣ Catalyser not centered. Uneven fuel distribution resulting in secondary air shortage. ▣ Insufficient fuel. ▣ The draft regulator is blocked in open position 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> — Increase fresh air supply (open door, window; add make up air supply). — Check Chimney for Soot build up. clean if necessary. <ul style="list-style-type: none"> - Ensure chimney height is sufficient and cap is not affected by any nearby obstructions. - Room is in negative pressure. Increase fresh air supply. Check draft with draft meter and adjust if not to requirements. See page 4. — Adjust low flow rate while control is set on "1", call your installer. — Check level. Adjust if necessary. — Center catalyser assembly — Check that the de-scaler, the regulator filter and burner pot are cleaned. — Unlock the draft regulator. <ul style="list-style-type: none"> - Check the regulator adjustment (p. 6) and refit, if necessary.
<i>Coke build up noticed.</i>	<ul style="list-style-type: none"> ▣ Excessive air supply. 		<ul style="list-style-type: none"> — Adjust draft.

4. Spare parts

When ordering spare parts, please indicate : model n°, colour code, description of the part, code of the part.

Example : Oil fired stove **174 07 53 L**, leg **300120 77**

A = 174 07 53 L B = 174 07 53 Y C = 174 07 53 J

N°	Code	Description	Type	A	B	C	Qty
1	100917	Cam pin	12x20 M7	A	B	C	01
2	905317	Basic burner		A	B	C	01
3	110105	Barometric damper		A	B	C	01
4	110404	Hinge pin	6x30	A	B	C	04
5	111275	Elbow, ring, nut		A	B	C	02
6	119216	Descaler		A	B	C	01
14	142301	Adhesive rope		A	B	C	0,76 m
15	142764	Gasket		A	B	C	01
16	149868	Knob		A	B	C	01
17	161025	Touch-up paint	(L)	A			01
17	161027	Touch-up paint	(J)			C	01
18	162534	Descriptive plate		A	B	C	01
19	165140	Float regulator		A	B	C	01
20	134601	Pin	2x20	A	B	C	01
22	179605	Regulator shaft		A	B	C	01
24	181602	Ceramic rope	Ø 8	A	B	C	0,70 m
25	181614	Ceramic rope	d. 9,5	A	B	C	0,85 m
26	188789	Refractory glass	11x(160x20x3)	A	B	C	01
26	199306	Refractory glass	1x(160x20x3)	A	B	C	11
27	189104	Screw	6x22	A	B	C	01
28	189118	Screw	d. 10	A	B	C	01
34	208410	Heat shield		A	B	C	01
35	217123	21 Shell		A	B	C	01
36	222530	Flue baffle		A	B	C	01
37	239722	10 Regulator support		A	B	C	01
38	240806	10 Support		A	B	C	01
39	228615	Square		A	B	C	02
40	259027	Fixing plate		A	B	C	02
41	260567	Heat shield		A	B	C	01
42	276003	Descriptive plate		A	B	C	01
43	300120	59 Leg			B		03
43	300120	77 Leg		A			03
43	300120	79 Leg				C	03
44	300469	59 Base			B		01
44	300469	77 Base		A			01
44	300469	79 Base				C	01
45	301039	59 Frame			B		01
45	301039	77 Frame		A			01
45	301039	79 Frame				C	01
46	301511	59 Door lock			B		01
46	301511	77 Door lock		A			01
46	301511	79 Door lock				C	01
47	302145	59 Top plate		A	B	C	01
48	303618	59 Top plate		A	B	C	01
49	309982	59 Main door			B		01
49	309982	77 Main door		A			01
49	309982	79 Main door				C	01
50	312624	59 Burner support		A	B	C	01
51	313509	59 Cover			B		01
51	313509	77 Cover		A			01
51	313509	79 Cover				C	01
52	314819	59 Exchanger cover		A	B	C	01
53	320409	Bearing		A	B	C	01
54	328001	Protection plate		A	B	C	01
55	400013	Axle		A	B	C	03
56	406813	Clamp		A	B	C	02
57	456011	Support		A	B	C	02
58	982636	Feed line regulator-burner		A	B	C	01
59	808001	ED Hand tool		A	B	C	01
60	979900	Fixing plate		A	B	C	07
62	982557	Feed line		A	B	C	01
63	276225	Reflector		A	B	C	01
65	124459	Strut			B		02

67	188784	Refractory glass 27x(112x20)	A	B	C . . . . .	.01
67	199304	Mirror glass (optional) . . . 1x(112X20)	A	B	C . . . . .	.27
68	242913	Ground vat (optional)	A	B	C . . . . .	.01
69	194401	Catalyser cover	A	B	C . . . . .	.01
70	198205	Catalyser ring	A	B	C . . . . .	.01
71	194403	Catalyser body	A	B	C . . . . .	.01
72	199204	Regulator filter	A	B	C . . . . .	.01
74	236707 94	Bracket	A	B	C . . . . .	.01
75	988803	Complete door (Y)		B . . . . .		.01
75	988804	Complete door (L)	A . . . . .			.01
75	988850	Complete door (J)			C . . . . .	.01
76	109552	Cap	A	B	C . . . . .	.03
77	905318	Complete burner	A	B	C . . . . .	.01
78	445906	Fixing plate	A	B	C . . . . .	.01
79	446299	Protector	A	B	C . . . . .	.01

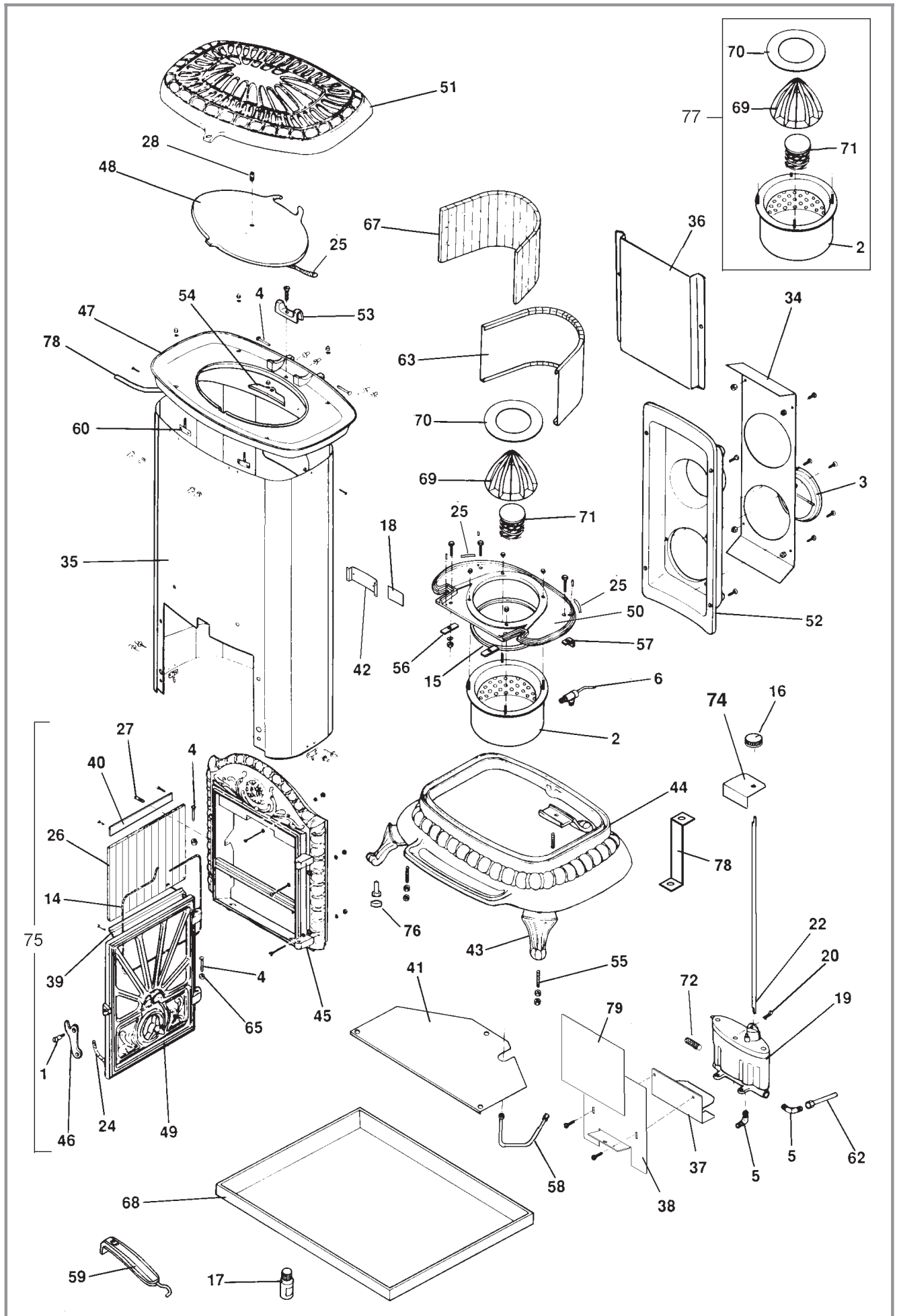


Fig. 9



Warranty certificate

Legal warranty

Our products are guaranteed for twelve months against any defect, flaw or imperfection. During this time, all parts judged defective by our Warranty control department may be replaced in our workshops. Incidental costs of transportation and packing payable by the buyer.

Some parts or components have a longer warranty period :

- Cast-iron shell of boiler : 3 years
- Steel shell of boiler : 3 years
- Removable or independent stainless steel hot water cylinder : 5 years
- Independent enamelled steel hot water cylinder : 3 years
- Incorporated circulating pump : 2 years.

Terms of the warranty

This warranty is only valid if :

- The unit has been installed and checked by a professional installer before operating,
- All installation and adjustment instructions listed in the

technical manual supplied with the unit have been followed,
- All operation and maintenance instructions have been followed.

This warranty does not cover :

- Lamps, fuses, spark plugs, cast iron parts directly in contact with burning coal and wood, firebricks, flue baffles, glasses .
- Any damage resulting from the use of fuel not recommended in our instructions ;
- Parts which are damaged by external causes such as unadapted chimneys, thunderstorms, damp, faulty pressure or fail in pressure, thermic anomalies, explosions, etc...
- Electrical parts which are deteriorated by any connection or use on a supply circuit with voltage within 10% of the indicated voltage (230 V in EU).

Material subject to modifications without prior notice. This manual does not engage the responsibility of FRANCO BELGE.

Name and address of the installer : _____

Telephone : _____

Name and address of the customer : _____

Date of installation : ____ / ____ / _____

Model of the appliance : 174.07.53

Color : L Y J

Serial number : _____

- This certificate has to be completed and kept carefully.

In case of claims, send a copy of this to :

Les Fonderies Franco-Belges, rue Orphée Variscotte, 59660 MERVILLE, FRANCE.