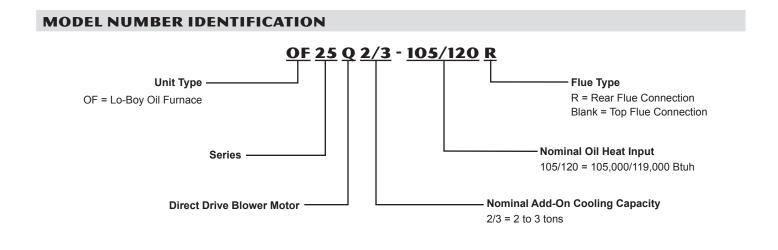


# OIL FURNACES OF25 ELITE® SERIES Lo-Boy

Bulletin No. 210442 August 2010 Supersedes August 2008



# AFUE - Up to 82.5% Heating Input - 105,000 to 112,000 Btuh Nominal Add-on Cooling - 2 to 3 Tons



### **FEATURES**

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#### **EQUIPMENT WARRANTY**

**Heat exchanger** - Limited lifetime warranty in residential applications.

**Oil burners and all other covered components** - Five year limited warranty in residential applications.

Refer to the Lennox Equipment Limited Warranty certificate included with the equipment for details.

#### **APPROVALS**

Units have been rated and tested according to U.S. Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations.

Units are certified by AHRI.

Units are ETL/Intertek listed.

Developed in accordance with ISO 9001 quality standards.

## APPLICATIONS

Lennox OF25 series lo-boy oil furnaces are applicable to residential or commercial applications.

Lennox indoor units matched with high-efficiency air conditioners, air cleaners and humidifiers an be added to the lo-boy units.

Large front and rear doors provide complete service access.

Blowers have sufficient capacity to handle cooling air volume requirements.

Heat exchanger and high-performance oil burner combine to provide maximum efficiency.

Units are shipped completely assembled ready for installation.



## **HEATING SYSTEM**

#### Reillo Oil Burner

All burners are thoroughly quality-tested to ensure the highest performance in residential and light commercial applications.

Electronic control box combines uninterrupted ignition, five-second safety shutoff and a ten-second prepurge cycle controlling the solenoid valve for smoke-free starts.

High-speed, permanent split capacitor (PSC) motor, with an exclusive low-voltage tap for the primary control and automatic reset on thermal overload, provides for low power consumption, long-life and maintenance-free operation.

Integrated fuel pump is driven directly from the PSC motor via a nylon drive key which eliminates coupling failure while maximizing stability and efficiency.

High static pressure combustion head with the ideal flame geometry burns ultra-clean. A titanium end cone eliminates air tube failure.

Sound deadening acoustic insulation inside the heavygauge metal cover provides quiet operation, even at full output.

Balanced high-efficiency fan.

Electronic operated air shutter that automatically closes the air intake when the burner is not operating, eliminating heat loss through the burner and enhancing burner efficiency.

## FEATURES

## HEATING SYSTEM (CONTINUED)

## 2 EZ Clean Heat Exchanger

Streamlined drum type heat exchanger exposes maximum surface area to the air stream with minimum air resistance.

Constructed of heavy gauge steel for maximum service life.

3 Strategically placed ports allow easy cleaning.

Heavy gauge mounting channels are provided in cabinet base for support of heat exchanger.

#### **Combustion Chamber**

All models have a factory installed, specially designed alumina silica ceramic fiber combustion chamber.

Combustion chamber can withstand temperatures of up to 2550°F resulting in more complete combustion and higher efficiencies.

#### **Flame Inspection Tube**

Conveniently located at the front of the unit.

Opening is large enough for normal inspection mirror.

#### **Barometric Draft Control**

Furnished as standard equipment and field installed in flue pipe.

#### **OPTIONS**

#### **Oil Filter**

Recommended for proper oil filtration. See Specifications table for order number.

#### **Two Stage Oil Pump**

Two stage oil pump is available.

See Specifications table for order number.

### **CONTROLS**

#### **Electronic Fan/Limit Control**

Factory installed on vestibule panel.

Control has two switches.

Switch one opens the limit circuit if the temperature exceeds the preset safety limit (automatic reset).

Limit control has fixed temperature setting and protects unit from abnormal operating conditions.

Switch two turns the fan on and off. Control turns blower on when the preset temperature is reached; approximately 60 to 90 seconds after burner ignites.

Temperature-start fan control assures proper blower operation and has adjustable blower-off temperature setting.

#### **Blower Cooling Relay**

Blower cooling relay activates the blower operation during the cooling cycle.

## Transformer

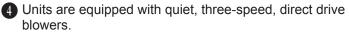
24 volt (40VA) control transformer with circuit breaker is furnished as standard and factory installed.

### **OPTIONS**

#### Thermostat

See Thermostat bulletins in Controls section and Lennox Price Book.

## **BLOWER**



Each blower assembly is statically and dynamically balanced.

Multiple-speed motor is resiliently mounted.

A choice of blower speeds is available on each blower.

See blower data tables.

Change in blower speed is easily accomplished by simple wiring change

## **CABINET**

6 Constructed of heavy gauge steel with a pre-painted, textured finish.

Entire heating section is lined with foil faced fiberglass insulation keeping cabinet surface temperatures low.

Removal of louvered heating section door allows access to oil burner, inspection door and control compartment.

Control compartment is totally enclosed to provide a safe, compact and clean area.

Large blower access door gives complete service access to blower.

Blower compartment is completely insulated.

Oil line and electrical inlet openings are provided in sides of cabinet, see dimension drawing.

## **FILTER**

Units are equipped with large, cleanable, frame-type filters. Easily removed when servicing is required.

SPECIFIC	ATIONS		
Oil Heating	Model Number	Top Flue Rear Flue	OF25Q3/4-105/120 OF25Q3/4-105/120R
Performance	Input - Btuh	Low Fire	105,000
		<sup>2</sup> High Fire	112,000
	Output - Btuh	Low Fire	84,000
		<sup>2</sup> High Fire	91,000
		<sup>1</sup> AFUE	82.0% - OF25Q3/4-105/120 82.5% - OF25Q3/4-105/120R
		Flue Size Diameter - in.	6
		Temperature rise range	50 - 80°F
Oil	Nozzle rating - gph	Low Fire	.65
Burner		<sup>1</sup> High Fire	.75
	Nozzle spray angle		80° solid
		Oil Burner Pump	1 Stage
		Oil Burner Pump Pressure - psig	140
		Air Inlet Connection (diameter) - in.	4
ndoor		Blower Motor Output - hp	1/3
Blower	Nominal add-on cooling - Tons		2 thru 3
		Blower wheel nom. diameter x width - in.	10 x 9
ilter		Number of filters	1
		Size of filters - in.	18 x 19 x 1
Shipping weig	ght - Ibs. 1 package		255
Electrical		Characteristics	115V-60hz-1ph
		Maximum Overcurrent Protection (amps)	15
OPTIONA	L ACCESSORIES	- MUST BE ORDERED EXTRA	
Blocked Flue	Switch Kit (Canada only)		10W52 - OF25Q3/4-105/120 10W53 - OF25Q3/4-105/120R
Oil Filters		10 micron without mounting bracket	81P89
		10 micron with mounting bracket	53P92
		Replacement cartridge - 10 micron, 45 gph	53P93
		Filter restriction indicator gauge	53P90
Two-Stage Oi	l Pump		65A44

<sup>1</sup> Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces. <sup>2</sup> Nozzle must be field provided for field conversion to higher heating input.

<sup>3</sup> Not available in Canada.

## **INSTALLATION CLEARANCES**

Approved for closet or alcove installation. When installing in a confined space, two ventilation openings must be provided into the space; one 6 in. from the top and one 6 in. from the bottom. Each opening should be 8 x 16 inches.

Sides of cabinet	6 in.
Rear of cabinet	24 in.
Front of cabinet	4 in.
Service Clearance (Front)	24 in.
Service Clearance (Rear)	24 in.
Floor	0 in
Top of plenum	2 in.
Plenum sides	3 in.
Flue pipe horizontal	9 in.
Horizontal warm air duct within 3 feet of furnace	2 in.

External	Air Volume at Various Blower Speeds - cfm		
Static Pressure in. w.g.	High	Medium	Low
.20	1490	1370	1190
.30	1430	1345	1180
.40	1375	1280	1160
.50	1300	1230	1120
.60	1230	1160	1080

## OF25Q2/3-105/120 BLOWER PERFORMANCE

NOTE - All air data is measured external to the unit with the air filter in place.

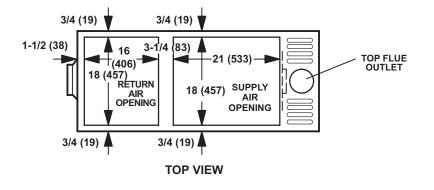
#### OF25Q2/3-105/120R BLOWER PERFORMANCE

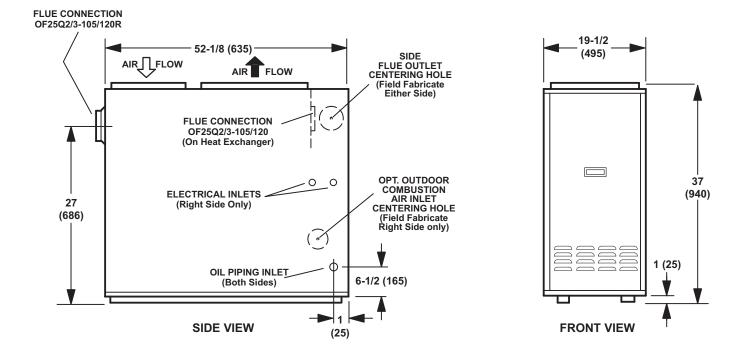
External	Air Volume at Various Blower Speeds - cfm		
Static Pressure in. w.g.	High	Medium	Low
.20	1470	1330	1150
.30	1410	1295	1170
.40	1340	1250	1125
.50	1280	1190	1080
.60	1205	1130	1030

 $\ensuremath{\mathsf{NOTE}}$  - All air data is measured external to the unit with the air filter in place.

Note – **Bold** cfm values are not recommended for heating.

### **DIMENSIONS - INCHES (MM)**





REVISIONS			
Sections	Description of Change		
Document	No change. Recreated in new publishing software.		









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NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.