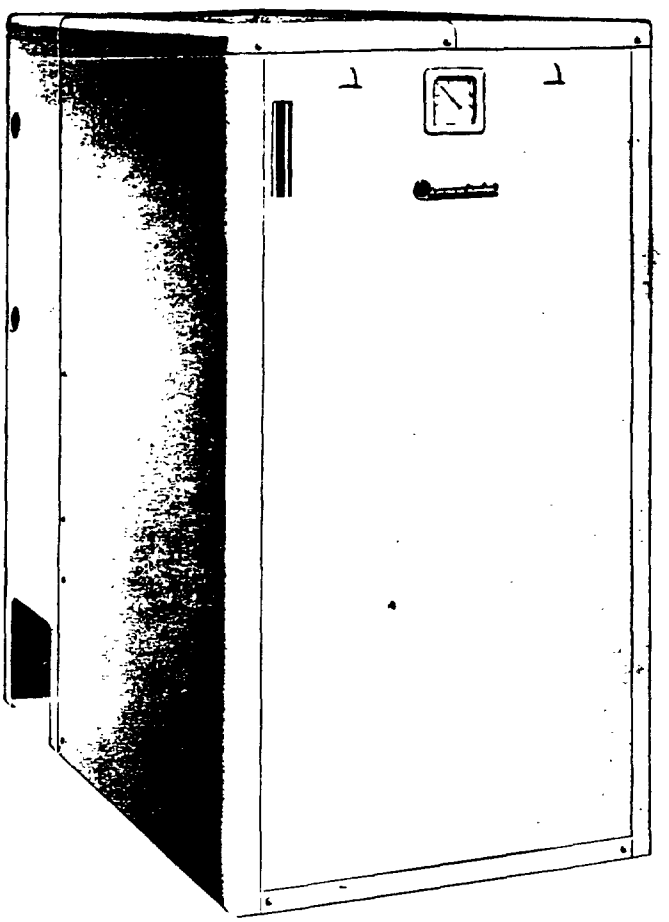
PLAINTIFF'S EXHIBIT

ASI-1113



boiler-burner models
and boilers

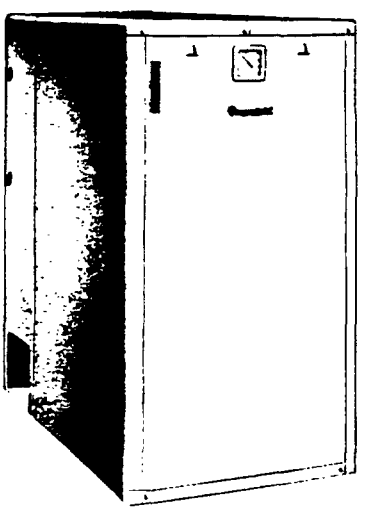
Oakmont oil-fired boilers

AMERICAN-Standard
hot water or steam heat

A.I.A. File No. 10 C 1 (June, 1962)

12125

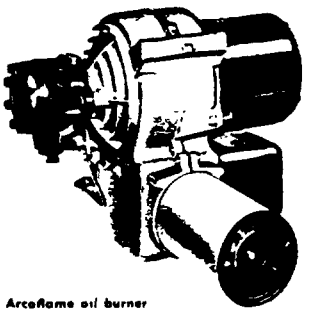
the Oakmont oil-fired unit—for efficiency, economy, durability



boiler with jacket extension



rear view of boiler with jacket extension



The Model DH-5 Arcoflame oil burner

■ **Oil heating unit for residential and commercial installations**—The Oakmont oil-fired unit is specially designed to provide clean, modern hot water or steam heat. Built exclusively for automatic operation with oil, the Oakmont is available in a wide range of sizes for both larger residential and commercial installations.

Outstanding features of the Oakmont are its efficiency, economy and durability. Peak efficiency is the result of skillful design and precision engineering. For example, each major component that comprises the quality proven boiler-burner unit—the rugged boiler sections, Model DH-5 Arcoflame burner, automatic controls, special combustion chamber and built-in water heater—has been completely integrated and tested to produce the finest in dependable, low-cost oil heating comfort.

The long-life, corrosion-resistant castings of the Oakmont are machine ground to assure an airtight, iron-to-iron fit. Each section must undergo rigid inspection and testing at 2½ times normal operating pressure. This careful attention to quality results in years of dependable, customer-satisfying heating comfort.

■ **Jacket designed for easy assembly and servicing**—One of the principal features of the Oakmont oil unit is its ease of servicing. An attractive jacket completely encloses the boiler. An optional jacket extension encloses burner and controls offering easy access to them.

The Oakmont jacket is fabricated from sturdy steel with slip-joint construction for easy assembly and perfect fit. It is attractively styled with modern, small radius corners and is finished in a harmonizing shade of gray that is highly resistant to heat, chipping, and scratching.

■ **The Model DH-5 Arcoflame oil burner**—is an integral part of the Oakmont boiler-burner unit. Technical skill, fine materials and rigid manufacturing standards make this high pressure burner a superior companion for the Oakmont. It is fully laboratory, field and factory tested to assure compliance with rigid American-Standard requirements. Precision die-cast aluminum housing provides ease in handling. The Model DH-5 Arcoflame burner is sling mounted with a unique hanger arrangement which assures smooth operation and easy, low-cost installation. It burns No. 1 or No. 2 fuel oil.

American-Standard Oakmont oil heating units have ratings approved by the Institute of Boiler and Radiator Manufacturers and are constructed to the specifications of the American Society of Mechanical Engineers. The Model DH-5 Arcoflame oil burner is listed by Underwriters' Laboratories, Inc. for No. 1 and No. 2 fuel oil, complies with *Commercial Standard* CS-75 and is approved by the New York City Board of Standards and Appeals, by the State Fire Marshal of the Commonwealth of Massachusetts and by the Department of Police, State of Connecticut.

1 – Jacket extension (optional) – matches jacket; has removable front and side panels for ready access to burner and controls. Arch-type opening in base provides ample air for combustion and ventilation

2 – Built-in water heater – tank or tankless type; provides year 'round hot water. Tankless type requires no separate storage tank

3 – Triple pass boiler, flue passages – hot gases travel twice the length of boiler; result in maximum heat absorption and fuel economy.

4 – Extra large nipples – extend below water line. For steam, this results in rapid circulation and quicker heating of boiler water for efficent and quiet heating. Also permit use of built-in water heater, which eliminates extra piping of an external heater

5 – Finned flue surfaces – durable cast iron sections are constructed with scientifically designed flue surfaces. They extract the maximum amount of heat from hot gases as they pass to chimney and prevent short circuiting of hot gases in flue passages

6 – Surface ground joints – assure air-tight fit to prevent short circuiting of gases and escape of odors.

7 – Jacket – completely encloses boiler. Equipped with large, easily removed access panels for ease in servicing boiler. Rigid slip-joint construction for quick assembly. Heavy insulation eliminates wasteful heat loss through jacket. Modern styling with radius corners and smooth harmonizing gray finish.

8 – Cast iron sections – each rugged cast iron section is factory tested at $2\frac{1}{2}$ times normal operating pressure to assure years of dependable operation

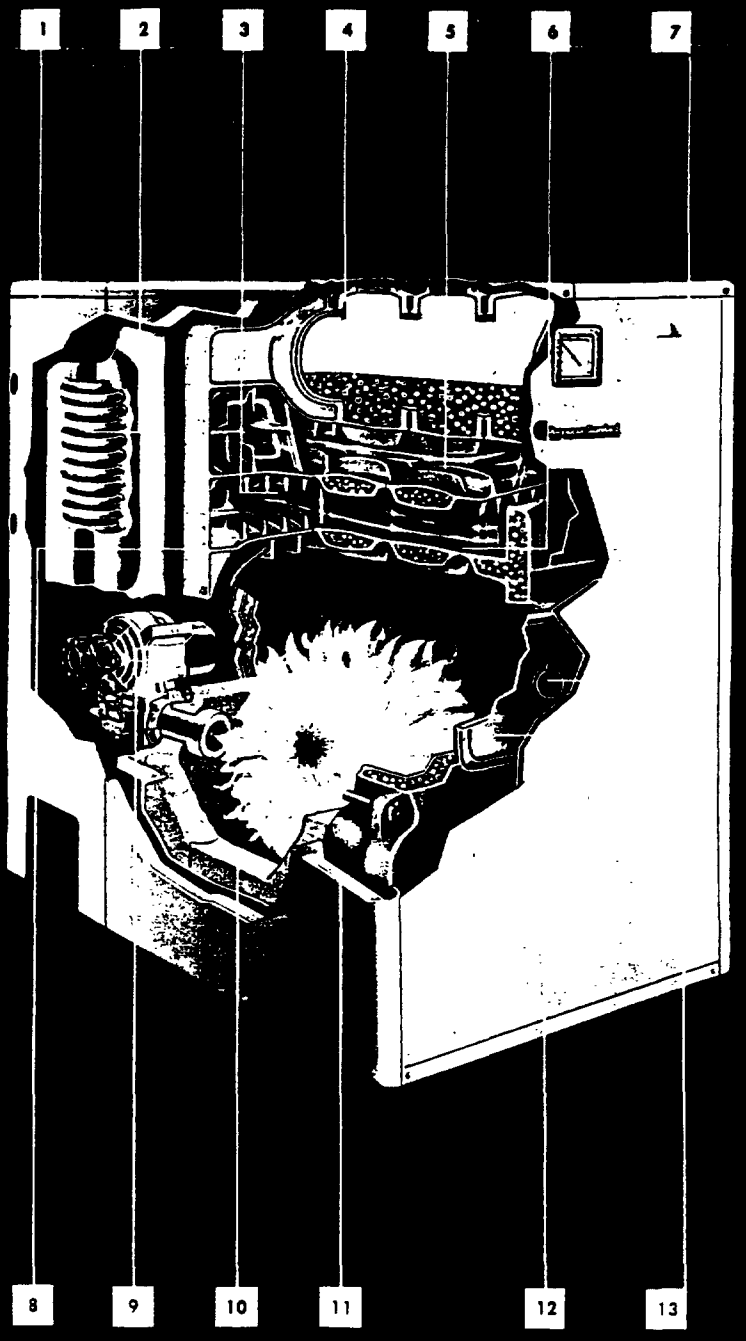
9 – Wood OH-5 – oil fired burner – special sling mounted model designed for this boiler. Boiler and burner operate as an integrated unit for top efficiency

10 – Heat Loc combustion chamber – factory molded refractory type. Saves labor and expense of a hand-built chamber. Provides for top operating efficiency. Regular equipment on complete oil heating units

11 – Heavy glass fiber insulation – prevents wasteful heat loss through jacket for more economical heat. Keeps jacket cool to the touch.

12 – Sectional cast iron cleanout doors – iron-to-iron contact with sections eliminates leakage of air and odors. Ample size provides for easy access and cleaning of flues

13 – Observation port – permits convenient observation of flame when making adjustments without opening service door



Oakmont ratings

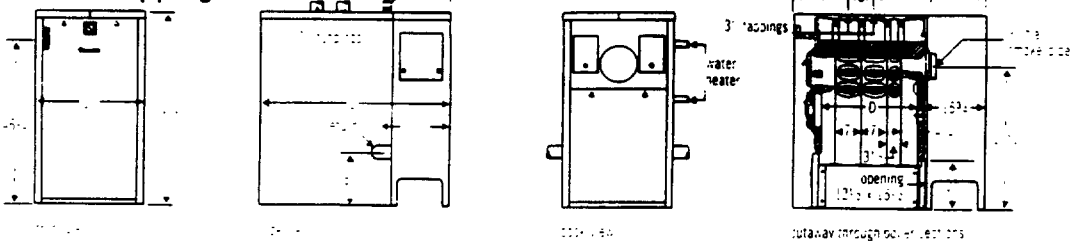
oil heating unit numbers▪		oil boiler number		net I=B=R rating ●			gross I=B=R output Btu/hr	I=B=R burner capacity gph	chimney		built-in water heaters		
				steam		water							capacity—gals.
steam	water	steam	water	Btu/hr	sq ft	Btu/hr			size inches	height feet	stock no.	type	180° boiler water temp.
*S 84 OB	*W 84 OB	*S 84	*W 84	107,300	447	107,300	143,000	1.40	8 x 8	20	583	tankless	3 per min.
*S 85 OB	*W 85 OB	*S 85	*W 85	131,300	547	131,300	175,000	1.75	8 x 8	25	585	tankless	3½ per min.
S 86 OB	W 86 OB	S 86	W 86	151,500	631	151,500	202,000	2.00	8 x 8	25	597	tankless	4¼ per min.
S 87 OB	W 87 OB	S 87	W 87	172,500	719	172,500	230,000	2.30	8 x 12	30	598	tank	40
S 88 OB	W 88 OB	S 88	W 88	195,800	816	195,800	261,000	2.55	8 x 12	30	599	tank	100
S 89 OB	W 89 OB	S 89	W 89	216,100	900	216,100	288,000	2.80	8 x 12	35	Any of the above built-in water heaters may be used with any Oakmont boiler.		

▪Oil heating unit number includes Model DH-5 Arcoflame oil burner.
Note: Nozzle sizes, gph, 60° S, furnished with Oakmont oil heating units: No. 84, 1.35; No. 85, 1.65; No. 86, 2.00; No. 87, 2.25; No. 88, 2.50; No. 89, 2.75.
Equipped with crown sheet baffle.

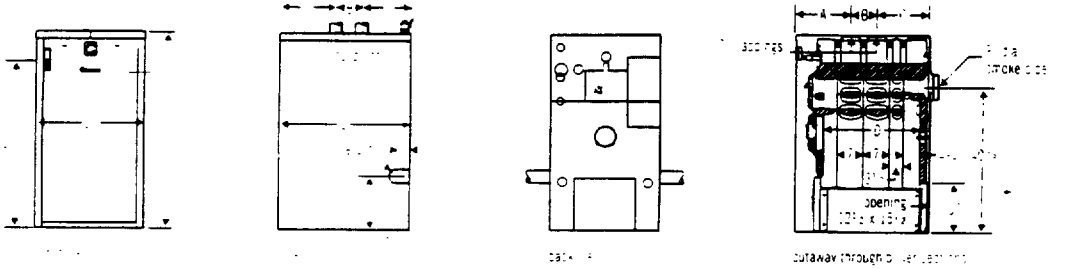
● Net I=B=R ratings shown include allowances for normal piping loss and pick up load. American-Standard should be consulted before selecting a boiler for installations having unusual piping and pick up requirements.

dimensions and tappings

extended jacket



flush jacket



	boiler number	A	B	C	D	L
extended jacket	S or W 84	14	—	26¾	15	40¾
	S or W 85	14	—	30¼	18½	44¼
	S or W 86	14	7	26¾	22	47¾
	S or W 87	14	7	30¼	25½	51¼
	S or W 88	14	14	26¾	29	54¾
	S or W 89	14	14	30¼	32½	58¼

	boiler number	A	B	C	D	L
flush jacket	S or W 84	14	—	11	15	25
	S or W 85	14	—	14½	18½	28½
	S or W 86	14	7	11	22	32
	S or W 87	14	7	14½	25½	35½
	S or W 88	14	14	11	29	39
	S or W 89	14	14	14½	32½	42½

assemblage of sections

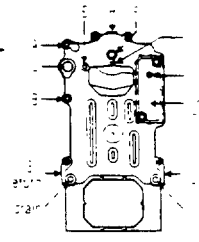
boiler number	arrangement of sections
S or W 84	F-CX-B
S or W 85	F-CX-NC-B
S or W 86	F-CX-CX-B
S or W 87	F-CX-CX-NC-B
S or W 88	F-CX-C-CX-B
S or W 89	F-CX-C-CX-NC-B

legend:

F—7" front section
C—7" center section
CX—7" center connecting section
NC—3½" narrow center section
B—6½" back section

control applications

location on boiler	size inches	steam or vapor	water
A and B	1	external low water control or feeder	"A" alternate water limit control "B" reverse acting water temperature control
C	2½	internal low water cut-off	water limit control
D	¾	operating temperature control for tankless heaters	operating temperature control for tankless heaters
E	1	operating temperature control for tank type heaters	operating temperature control for tank type heaters
F	1½	blow-off	alternate water limit control
G	½	pressure control▼	not used
H	1¼	safety valve	relief valve
inserted in smoke pipe	—	stack control	stack control



▼ vapor control on vapor boiler

American-Standard Oakmont Oil-fired Heating Units are another development in hydronics—the science of heating and cooling with water.

AMERICAN-Standard PLUMBING AND HEATING DIVISION
AMERICAN RADIATOR & STANDARD SANITARY CORPORATION
40 WEST 40TH STREET • NEW YORK 18, NEW YORK

12128