



NYC Department of Buildings
280 Broadway, New York, NY 10007
Patricia Lancaster, FAIA, Commissioner
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Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 77-07-E Vol. 3

Manufacturer: Burnham Commercial, P.O. Box 3939, Lancaster, PA 17604-3939

Trade Name(s): Burnham Commercial

Product: Packaged boiler assemblies

Pertinent Code Section(s): 27-800, 27-807, 27-824, RS 14-2 (ANSI Z223.1)

Prescribed Test(s): RS 14-6 (UL 296, UL 726, UL 795)

Laboratory: Underwriters Laboratories, Inc.

Test Report(s): File MP3084, dated October 2, 2006.

Description: These are scotch type, four-pass, wet back, fire tube type steam or hot water boilers intended for industrial or commercial use. These are high-pressure steam 150 psig, model 4SP, and high-pressure hot water 125 psig, 250°F, model 4SPW. Boilers rated 100 hp through 400 hp. They are designed for operation with natural gas and/or oil fuel not heavier than ASTM D396 No.2, depending on the burner design and equipment provided. Each boiler is constructed, equipped, inspected, tested, and marked in accordance with the ASME Boiler and Pressure Vessel Code. All boilers are equipped with a Listed burner with a proved gas pilot for ignition of main flame and arranged for proved low-fire start and full modulation operation firing pressure atomized (Power Flame Model C and LNCI Series; John Zink Model S and F Series) and air atomized (Power Flame Model AC and CM Series) oil not heavier than ASTM D396 No.2 and natural gas. All sizes of boilers are identical in design and location of components and vary only in physical size unless otherwise indicated herein. Boilers equipped with Listed Power Flame Inc. Model LNIC and LNICM burners and John Fink LLC model S and F burners are of the emission reduction type employing induced flue gas recirculation (IFGR).

The complete boiler model designation is as follows:

Series 4S-P-125-50-GO-PF
1 2 3 4 5

The Series 4S identifies the basic boiler design; the remainder of the suffixes denotes the following:

1. "P" high-pressure steam, "PW" high-pressure water boiler.
2. Boiler horsepower may be 100, 125, 150, 175, 200, 250, 300, 350 and 400.
3. 50 denotes 5 sq ft of heating surface per boiler horsepower.
4. Fuel, where: G –Gas, O -Pressure or air atomizing No. 2 oil, and GO - Combination gas/pressure or air atomizing No. 2 oil
5. Burner -Denotes the manufacturer of the Listed burner intended to be provided on the boiler:
PF -Power Flame Inc.
GP -John Zink Co. LLC, Gordon Piatt

SERIES 4S BOILERS WITH
POWER FLAME MODEL LNIC and LNICM BURNERS

Boiler Model Designation (#)	Boiler Hp	Burner Model	Firing Rate Range			
			No. 2 Oil GPH		Gas (x 1000)	
			Min.	Max.	Min.	Max.
4SL, 4SP, 4SW, 4SPW 100	100	LNIC4-GO-25	18.0	29.9	2,459	4,184
		LNIC4-G-25	n/a	n/a	2,459	4,184
125	125	LNIC4-GO-30	18.0	37.4	2,459	5,230
		LNIC4-G-30	n/a	n/a	2,459	5,230
150	150	LNIC5-GO-30	18.0	44.8	3,000	6,277
		LNIC5-G-30	n/a	n/a	3,000	6,277
175	175	LNIC6-GO-30	32.0	52.3	4,646	7,323
		LNIC6-G-30	n/a	n/a	4,646	7,323
200	200	LNIC6-GO-30	32.0	59.8	4,646	8,369
		LNIC6-G-30	n/a	n/a	4,646	8,369
250	250	LNIC7-GO-30	24.7	74.7	3,458	10,461
		LNIC7-G-30	n/a	n/a	3,458	10,461
		LNICM9A-GO-30	11.3	74.7	1,260	10,461
		LNICM9A-G-30	n/a	n/a	1,260	10,461
300	300	LNIC8-GO-30	31.7	89.7	4,438	12,553
		LNIC8-G-30	n/a	n/a	4,438	12,553
		LNICM9A-GO-30	11.6	89.7	1,520	12,553
		LNICM9A-G-30	n/a	n/a	1,520	12,553
350	350	LNICM9B-GO-30	11.6	104.6	1,520	14,645
		LNICM9B-G-30	n/a	n/a	1,520	14,645
400	400	LNICM10-GO-30	18.8	119.6	2,100	16,738
		LNICM10-G-30	n/a	n/a	2,100	16,788

SERIES 4S BOILERS WITH
JOHN ZINK CO. LLC MODEL S AND F BURNERS

Boiler Model Designation (#)	Boiler Hp	Burner Model (+)	Firing Rate Range			
			No. 2 Oil GPH		Gas (x 1000)	
			Min.	Max.	Min.	Max.
4SL, 4SP, 4SW, 4SPW 100	100	S10.2-GO-50	10.5	29.9	1,470	4,184
		S10.2-G-50	n/a	n/a	1,470	4,184
		S10.2-O-50	10.5	29.9	n/a	n/a
		F10.1-GO-50	10.0	29.9	1,395	4,184
		F10.1-G-50	n/a	n/a	1,395	4,184
		F10.1-O-50	10.0	29.9	n/a	n/a
125	125	S12-GO-50	11.0	37.4	1,540	5,230
		S12-G-50	n/a	n/a	1,540	5,230
		S12-O-50	11.0	37.4	n/a	n/a
		F12-GO-50	12.5	37.4	1,743	5,230
		F12-G-50	n/a	n/a	1,743	5,230
		F12-O-50	12.5	37.4	n/a	n/a
150	150	S12-GO-50	11.0	44.8	1,540	6,277
		S12-G-50	n/a	n/a	1,540	6,277
		S12-O-50	11.0	44.8	n/a	n/a
		F12-GO-50	15.0	44.8	2,100	6,277
		F12-G-50	n/a	n/a	2,100	6,277
		F12-O-50	15.0	44.8	n/a	n/a
175	175	S14-GO-50	15.0	52.3	2,100	7,323
		S14-G-50	n/a	n/a	2,100	7,323
		S14-O-50	15.0	52.3	n/a	n/a
		F14-GO-50	18.7	52.3	2,620	7,323
		F14-G-50	n/a	n/a	2,790	8,369
		F14-O-50	18.7	59.8	n/a	n/a
200	200	S14-GO-50	15.0	59.8	2,100	8,369
		S14-G-50	n/a	n/a	2,100	8,369
		S14-O-50	15.0	59.8	n/a	n/a
		F14-GO-50	18.7	59.8	2,790	8,369
		F14-G-50	n/a	n/a	2,790	8,369
		F14-O-50	18.7	59.8	n/a	n/a
250	250	S14.1-GO-75	18.0	74.7	2,520	10,461
		S14.1-G-75	n/a	n/a	2,520	10,461
		S14.1-O-75	18.0	74.7	n/a	n/a
		F14.1-GO-75	25.0	74.7	3,500	10,461
		F14.1-G-75	n/a	n/a	3,500	10,461
		F14.1-O-75	25.0	74.7	n/a	n/a
300	300	F16-GO-75	30.0	89.7	4,200	12,553
		F16-G-75	n/a	n/a	4,200	12,553
		F16-O-75	30.0	89.7	n/a	n/a
350	350	F16.1-GO-150	35.0	104.6	4,900	14,645
		F16.1-G-150	n/a	n/	4,900	14,645
		F16.1-O-150	35.0	104.6	n/a	n/a
400	400	F16.2-GO-150	40.0	119.6	5,600	16,738
		F16.2-G-150	n/a	n/a	5,600	16,738
		F16.2-O-150	40.0	119.6	n/a	n/a

SERIES 4S BOILERS WITH
JOHN ZINK CO. LLC MODEL IF BURNERS

Boiler Model Designation (#)	Boiler Hp	Burner Model (+)	Firing Rate Range			
			No. 2 Oil GPH		Gas (x 1000)	
			Min.	Max.	Min.	Max.
4SL, 4SP, 4SW, 4SPW 100	100	IF10.2-GO-50	10.0	29.9	1,395	4,184
		IF10.2-G-50	n/a	n/a	1,395	4,184
		IF10.2-O-50	10.0	29.9	n/a	n/a
125	125	IF12.1-GO-50	12.5	37.4	1,743	5,230
		IF12.1-G-50	n/a	n/a	1,743	5,230
		IF12.1-O-50	12.5	37.4	n/a	n/a
150	150	IF12.4-GO-50	14.9	44.8	2,092	6,277
		IF12.4-G-50	n/a	n/a	2,092	6,277
		IF12.4-O-50	14.9	44.8	n/a	n/a
175	175	IF14-GO-50	17.4	52.3	2,441	7,323
		IF14-G-50	n/a	n/a	2,441	7,323
		IF14-O-50	17.4	52.3	n/a	n/a
200	200	IF14.1-GO-50	19.9	59.8	2,790	8,369
		IF14.1-G-50	n/a	n/a	2,790	8,369
		IF14.1-O-50	19.9	59.8	n/a	n/a
250	250	IF16-GO-75	24.9	74.7	3,487	10,461
		IF16-G-75	n/a	n/a	3,487	10,461
		IF16-O-75	24.9	74.7	n/a	n/a
300	300	IF16.1-GO-150	29.9	89.7	4,184	12,553
		IF16.1-G-150	n/a	n/a	4,184	12,553
		IF16.1-O-150	29.9	89.7	n/a	n/a
350	350	IF16.2-GO-150	34.9	104.6	4,882	14,645
		IF16.2-G-150	n/a	n/a	4,882	14,645
		IF16.2-O-150	34.9	104.6	n/a	n/a
400	400	IF18.1-GO-150	39.9	119.6	5,579	16,738
		IF18.1-G-150	n/a	n/a	5,579	16,738
		IF18.1-O-150	39.9	119.6	n/a	n/a

Terms and Conditions: The above-described packaged boilers are accepted for use with the following conditions:

1. Boilers shall be installed on non-combustible flooring. Minimum installed clearances shall be in accordance with RS 14-15 of the New York City Building Code.
2. Boilers shall be constructed in accordance with RS 14-4, the ASME Code, and installed as per clearances to combustible construction specified above.
3. Boilers shall be fired by natural gas or oil as specified above, only.
4. Boilers shall be connected to compatible approved gas or oil-vent or chimney in accordance with Subchapter 15 of the New York City Building Code and Section 27-886.
5. This acceptance in no way includes the external piping, connections and appurtenances thereto, which are required to fully conform with applicable provisions of the law, but have been tested in conjunction with this application, nor does it include any vent damper which may be added to the installation.
6. Approval of all electrical equipment apparatus, materials and devices shall be obtained from the Department's Electrical Advisory Board before installation.
7. All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided in Section 27-131 of the New York City Building Code.

NOTE: In accordance with Section 27-131(d), all materials tested and accepted for use shall be subject to periodic retesting as determined by the Commissioner; and any material which upon retesting is found not to comply with Code requirements or the requirements set forth in the approval of the Commissioner shall cease to be acceptable for the use intended. During the period for such retesting, the Commissioner may require the use of such material to be restricted or discontinued if necessary to secure safety.

Final Acceptance January 4, 2008

Examined By Sivan Derphidar