PLAINTIFF'S EXHIBIT
ASI-918

AMERICAN STANDARD

Ratings & Data of Discontinued KEWANEE® Boilers

Volume 1

PRICE – $10.00

FORM 3149

24271

24272

FOREWORD

This booklet consolidates reproductions of catalog pages on the old KEWANEE BOILERS which are obsolete.

To simplify this data, only a single page of any listed unit is included. Some will show hand fired [illegible] ratings, [illegible] ve oil capacities. By the use of the factors which we list below, the rating for any fuel can be calculated.

This listing has been compiled to enable you to size boiler replacements. Since many existing installations, while originally sized for hand fired operation will now be automatically fired, we recommend your calculating all listed units on the *old* SBI basis as follows:

(1) For hand fired coal *see note below.
Heating surface x 14 = SBI GROSS output in square feet (EDR).

2) For oil-Gas-Stoker
Heating surface x 17 = SBI GROSS output in square feet (EDR).

Ratings so calculated are comparable in their usage to current SBI GROSS outputs.

*Note: This does not apply to our Scotch Marine Boilers other than the original Scotte Junior riveted, HM-6 through HM-30. No other Scotch Marine Boilers have been offered by us for coal fired operation.

FIRING RATES

All of our recent catalogs have listed firing rates at 150% or 141.5% of SBI rating. In the case of such a catalog listing, the firing rates may be safely followed.

It is *not* advisable to calculate the firing rates on our older boilers in the same manner. Those boilers that have been installed for some time, the ratings for which have been calculated as above, should have their firing rates selected on 100% of capacity. Furthermore, the overall efficiency of automatic gas or oil fired boilers should be assumed to be 75% (stoker fired units as 65%). On this basis the following would be determined as follows:

$$\frac{\text{Square feet EDR (SBI)} \times 240 \text{ BTU}}{\text{*Fuel value in BTU} \times .75 \text{(Note a. efficiency)}} = \text{Firing Rate.}$$

*BTU content of fuels is listed below:

Coal-Stoker Fired –	12,000 BTU/LB.
	11,000 BTU/LB.
	10,000 BTU/LB.
Gas –	1,000 BTU/FT³
Oil – Light #2	140,000 BTU/GAL.
Heavy #5 & #6	150,000 BTU/GAL.

*Note a. 65% efficiency stoker fired

EXAMPLE

Rating

#419 – Heating surface 1168 FT²

1168 x 17 = 19,856 FT² EDR (SBI)

Firing Rate

$$\frac{19,856 \text{ FT}^2 \times 240 \text{ BTU}}{150,000 \text{ BTU/GAL} \times .75} = \frac{4,765,440 \text{ BTU}}{112,500 \text{ BTU}} = 42.4 \text{ Gal.}$$

REPLACEMENT SIZING

This catalog data is being sent to you to assist you in sizing replacement boilers. Selection of a boiler on the basis of the size of the existing equipment does not relieve you of the responsibility of determining the total load to be carried by the new unit(s). Due regard must be given to the condition of the system and to all additional loads added since the original installation, including, but not necessarily limited to, service hot water, additional heating equipment, pipe loss, start up allowances, etc.

SIZING WITHOUT NUMBER PLATES

On many old installations identifying number plates will be missing. Some were attached to the base ashpit doors and in the process of conversion to automatic firing, the identification is lost.

Several reliable alternatives are available.

(1) Look for the boiler stamping as shown Appendix Page V. This includes the boiler number and the safety valve capacity. The latter is an excellent basis for selecting a replacement size, *in the same fuel.*

(2) Identify boiler type; up draft, downdraft, firebox, compact, Scotch Marine, horizontal return tubular, etc.

(3) Check the number, diameter and length of boiler tubes, direct and return, and compare with current Bulletin 100—3-100H and/or listings of obsolete units on Appendix pages I, II, III, IV.

(4) Compare size as determined #3, with dimensions of shells listed in this booklet, including the very important inside firebox dimensions. Only when all three, tube, outside and inside firebox dimensions coincide, can you be sure of exact boiler number.

(5) Be sure the unit in question was made in Kewanee, Illinois. Some years ago, Fitzgibbons Boiler Company sold a unit under the name of Kewanee which was not ours.

In general, our units have four or three digit numbers. In the case of four digits, the first two identify the model eg M 8080 is a Scotch Marine boiler, 8000 series. The three digit numbers use the first number to identify the model eg #419 is a 400 series updraft with 4" tubes. In both cases the last two numbers identify the size or capacity within a given model number.

A word about conversion of downdraft bituminous (smokeless) boilers. These units had a tubular water grate between the upper and lower firebox areas. The surface of these tubes is included in the cataloged heating surface. When converted to gas, oil or stoker, this water grate need not be removed if the installer properly sets the burner equipment so that fire will not impinge on the water grate.

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APPENDIX

Tubes* Size Length and Number, and Stamping

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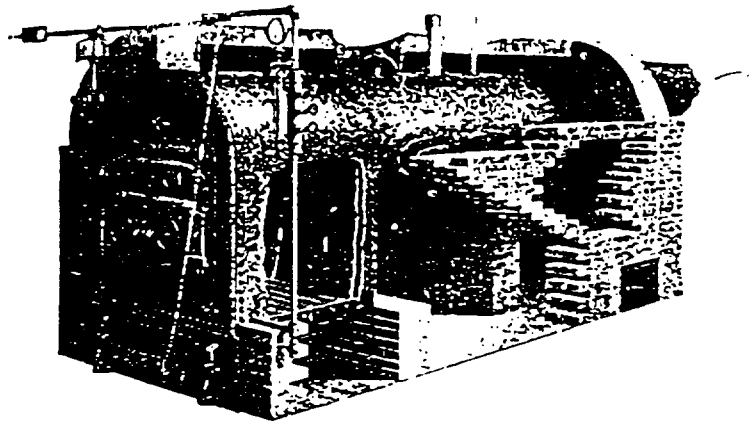
III	K, P, G, Scottie Jr. - 8000-300-400-500 Series Simplified Practice
IV	Round R, Square R, 83 R, Type C, 5000, 6000 Series Simplified Practice
V	Boiler Stamping

* *For current series use Bulletin 100-3-100H, P & D Book.*

Kewanee Boiler Brick-set for Heating



The Kewanee Up-Draft Boiler will burn any kind of fuel; hard, soft or lignite coal; coke, gas or oil. It will secure the maximum efficiency for an up-draft boiler; but when soft coal is used, we recommend our smokeless type of boiler, which is designed especially for burning soft coal smokelessly.

The heating surface of a Kewanee boiler is that portion of the boiler containing water, with which the fire and gases come in contact. This includes the fire-box of the boiler which is surrounded by water, the tubes, and the outside surface of the cylinder or shell below the water line. Kewanee boilers are practically all heating surface.

The ratings shown below are based on a standard for steam of two pounds pressure at the boiler, and for water on a mean temperature of 180 degrees Fahrenheit as the water leaves the boiler.

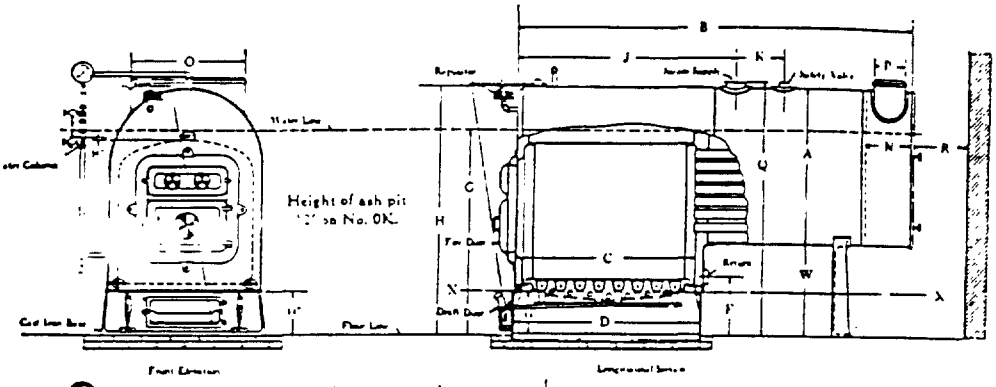
Specifications

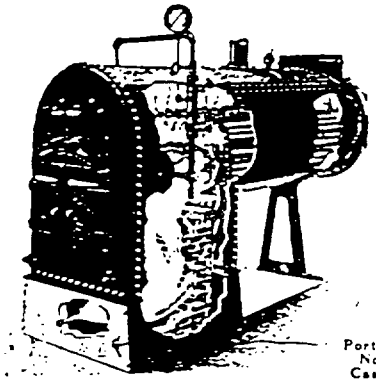
Number of Boiler	0	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Capacity, Steam...E D R sq. ft.	700	900	1050	1200	1400	1700	2000	2600	3600	3500	4200	4500	5500	6500	7500	8700	10000	11000	12000	14500
Capacity, Water...E D R sq. ft.	1150	1500	1700	2000	2300	2800	3300	4300	5000	5800	6600	7400	9100	10700	12400	14400	16500	18200	19800	23100
Diameter Boiler.....in.	24	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler overall.....ft. in.	6-10	6-5	7-6	8-6	7-6	9-0	10-6	10-0	11-6	10-6	12-0	13-6	13-11	16-5	15-6	18-0	16-0	18-0	16-0	18-0
Approximate Weight, Pounds	1900	2400	2700	2900	3300	3700	4200	5400	6000	6700	7300	8000	10600	11900	14400	16000	17800	19100	21700	23500
Width of Fire-box.....in.	19	24	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box.....in.	26	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
Height of Fire-box.....in.	30	35	35	35	38	38	38	41	41	44	44	44	49	49	54	54	59	59	64	64
Heating Surface.....sq. ft.	84	113	131	147	186	215	250	305	350	368	420	472	560	623	743	873	954	1080	1167	1350
Area of Grate.....sq. ft.	3.5	4 4	5 4	6 4	6 8	8 0	9 3	11.1	12 6	12 9	14 7	16.5	18 8	20 8	22 9	25 1	25.5	28 0	30 8	33.5
Diameter of Breeching.....in.	10	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack.....in.	10	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack...ft.	35	40	40	40	40	40	45	45	45	45	50	50	50	50	55	55	60	60	60	60
Diam. of Breechune 2 Boilers.in.	16	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diam. of Stack, 2 Boilers...in.	16	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Min. Hgt. of Stack 2 Boilers..ft.	40	45	45	45	45	45	45	50	50	50	50	50	55	60	60	70	70	70	70	75
Size of Steam Opening.....in.	3	4	4	5	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8
Size of Return.....in.	2	2½	2½	3	3	3	3	4	4	4	5	5	5	5	5	6	6	6	6	6
Size of Safety Valve.....in.	1	1¼	1¼	1¼	1¼	1¼	2	2	2	2	2½	2½	2½	3	3	3½	3½	3½	4	4
Height of Water Line.....in.	47	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Brick Work.....in.	64	70	70	70	77	77	77	83	83	90	90	90	96	96	108	108	114	114	120	120

1913 1922

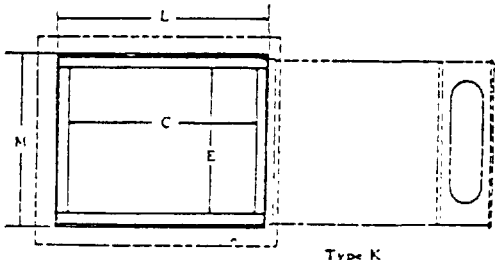
Kewanee Up-Draft Boilers

Portable Type K and Brick-Set

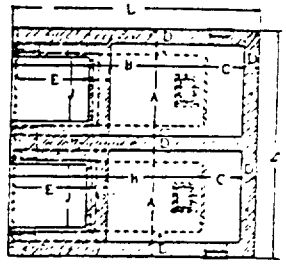




Portable Type K
Nos. 0K-12K
Cast Iron Base



Type K
Foundation Plan
at XX
Nos. 0K-12K



Brick-set No. 0-20
Double Setting Foundation Plan
Single Setting Plan Similar

Specifications

Number of Boiler, Type K.....	0K	1K	2K	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	17K	18K	19K	20K
Capacity, Steam.....Sq. Ft	510	690	940	1240	1380	1830	2410	3340	3850	4170	4730	5290	6260	7520	8440	9910	11070	12540	13890	15810
Capacity, Water.....Sq. Ft	820	1100	1500	1980	2210	2930	3860	5340	6160	6670	7570	8460	10020	12030	13500	15860	17710	20060	22220	25300
Approximate Weight.....Pounds	2600	2900	3200	3500	3900	4400	4900	6300	6900	7600	8300	9000	11100	12400	15000	16600	17900	19200	21900	23700
Oil, Gas or Stoker:																				
Capacity Steam.....Sq. Ft	1040	1410	1580	1770	2360	2790	3230	4100	4680	5060	5740	6420	7600	9130	10250	12040	13450	15230	16860	19190
Furnace Volume.....Cu. Ft	10 3	14 8	18 6	22 4	23 6	28 4	33 1	43 6	49 8	51 2	58 9	66 6	85 4	95 1	115 8	127 6	140 8	155 5	186 1	203 4
Approximate Weight.....Pounds	2300	2650	2900	3130	3550	3950	4400	5650	6180	6900	7500	8100	9900	11100	13500	15000	16250	17400	20000	21500
Heating Surface.....Sq. Ft	61	83	93	104	139	164	190	241	275	298	338	378	447	537	603	708	791	896	992	1129
Length of Boiler Overall....Ft. In	7–9	7–10	8–10	9–10	8–10	10–4	11–10	11–4	12–10	11–10	13–4	14–10	15–4	17–10	17–0	19–6	17–6	19–6	17–6	19–6
Minimum Height of Stack.....Feet	35	35	35	35	35	35	40	40	40	40	45	45	45	45	50	50	55	55	55	55
Minimum Height of Stack, Two Boilers.....Feet	40	40	40	40	40	40	40	45	45	45	45	45	50	55	55	65	65	65	65	65
Height from Floor to Top of Boiler.....Inches	51	59	59	59	65	65	65	71	71	77	77	77	83	83	93	93	99	99	105	105
Type K and Brick-set																				
Area of Grate.....Sq. Ft	3 5	4.4	5 4	6 4	6 8	8 0	9.3	11 1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25 1	25.5	28.0	30 8	33 5
Width of Fire-box.....Inches	19	24	24	24	30	30	30	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box.....Inches	26	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
Height of Fire-box.....Inches	30	35	35	35	38	38	38	41	41	44	44	44	49	49	54	54	55	59	64	64
Diameter of Boiler.....Inches	24	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
Diameter of Breeching.....Inches	10	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack.....Inches	10	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Diam. of Breeching, Two Boilers, In.	16	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diam. of Stack, Two Boilers.Inches	16	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Size of Steam Opening.....Inches	3	4	4	5	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8
Size of Return.....Inches	2	2½	2½	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	6
Size of Safety Valve.....Inches	1	1½	1½	1½	1½	1½	2	2	2	2	2½	2½	2½	3	3	3½	3½	3½	4	4
Height of Water-line.....Inches	45	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Number of Boiler, Brick-set	0	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Capacity, Steam.....Sq. Ft	510	690	940	1240	1380	1830	2410	3340	4170	4300	5130	6070	7440	8770	10310	12080	12420	14670	16340	18610
Approximate Weight.....Pounds	1900	2400	2700	2900	3300	3700	4200	5400	6000	6700	7300	8000	10600	11900	14400	16000	17800	19100	21700	23500
Capacity, Steam, Oil, Gas or Stoker.....Sq. Ft	1440	1920	2230	2500	3060	3650	4250	5180	5950	6250	7140	8020	9520	11440	12630	14840	16210	18260	19840	2660
Furnace Volume, Oil, Gas or Stoker.....Cu. Ft	10 3	14 8	18 6	22 4	23 6	28 4	33 1	43 6	49 8	51 2	58 9	66 6	85 4	95 1	115 8	127 6	140 8	155 5	186 1	203 4
Approximate Weight Oil, Gas or Stoker.....Pounds	1800	2200	2400	2500	2900	3300	3700	4800	5300	6000	6500	7100	9400	10600	12900	14400	16200	17300	19800	21300
Heating Surface.....Sq. Ft	64	113	131	147	180	215	250	305	350	368	420	472	560	673	743	873	954	1085	1160	1329
Minimum Height of Stack.....Feet	35	40	40	40	40	40	45	45	45	45	50	50	50	50	55	55	60	60	60	60
Min. Hgt. of Stack 2 Boilers.Feet	40	45	45	45	45	45	45	50	50	50	50	50	55	60	60	70	70	70	70	70
Height from Floor to Top of Brick Work.....Inches	64	72	72	72	77	77	77	83	83	95	95	95	96	96	108	108	114	114	120	120

Rated Capacity for Water Boiler, 6[illegible] Greater than Steam. Measurements Tables on next page.

The Plumbing and Heating Co. of

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24276

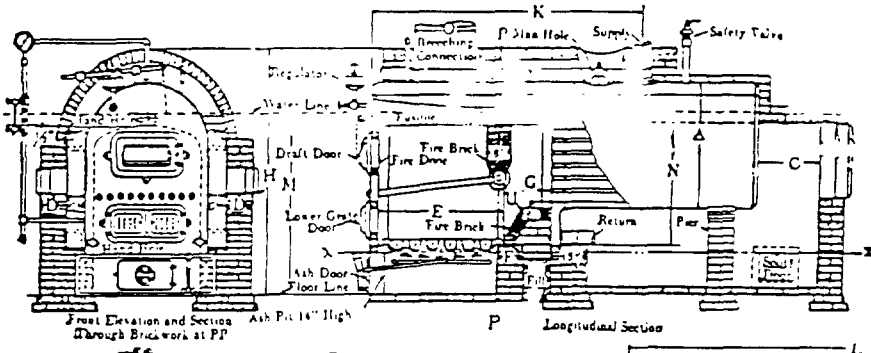
Kewanee Smokeless Boilers

The Kewanee Up-Draft Boiler will burn any kind of fuel; hard, soft or lignite coal; coke gas or oil. It will secure the maximum efficiency for an up-draft boiler. If it is to be used smokelessly, we recommend our down-draft type of boiler, which is designed especially for burning soft coal smokelessly.

The heating surface of a Kewanee boiler is that portion of the boiler which is exposed to contact with the products of combustion in the fire box or is surrounded by water, the tubes, and the outside surface of the cylinder or shell below the water line. Kewanee boilers are practically all heating surface.

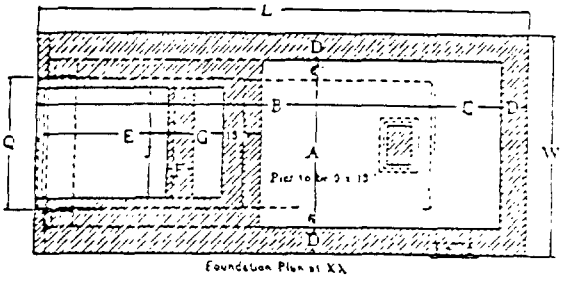
"The ratings published in this catalog are in conformity with the Steel Heating Boiler Institute's Code for Rating Low Pressure Heating Boilers." Fifteen pounds steam pressure is regular. Higher pressures are special.

Kewanee Smokeless Boiler with Stack Connection at Front





Sectional View Smokeless Boiler —Brick-set with Stack Connection at Rear



Specifications

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Capacity, Steam ..... Sq Ft	1650	2320	3120	3250	4260	5020	5250	6270	7490	8790	10370	11750	13620	14900	16720	18070	20380
Capacity, Water ..... Sq Ft	2640	3710	4990	5200	6820	8030	8400	10030	11980	14060	16590	18800	21790	23840	26750	28910	32610
Approximate Weight ..... Pounds	4600	5100	5600	6200	6800	7300	8500	9100	9800	12500	13900	16400	18000	20400	22100	23600	25800
Diameter of Boiler..... Inches	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length of Boiler Over-all ... Ft. In	8-7	10-1	11-7	9-10	11-4	12-10	12-4	13-10	15-4	15-9	16-3	17-10	20-4	18-4	20-4	16-4	20-4
Width of Fire-box..... Inches	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Fire-box ..... Inches	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface ..... Sq Ft	206	243	288	297	345	393	425	480	535	626	741	839	973	1064	1194	1291	1452
Area of Upper Grate ..... Sq Ft	5.9	7.2	8.4	8.6	10.1	11.4	11.8	13.2	15.0	17.1	19.1	21.1	23.3	23.5	25.9	28.5	31.3
Diameter of Breeching ..... Inches	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diameter of Stack ..... Inches	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum Height of Stack ... Feet	45	45	45	50	50	50	50	55	55	60	60	60	60	70	70	70	70
Diam. of Breeching, Two Boilers In	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	45	50
Diam. of Stack, Two Boilers Inches	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers ..... Feet	55	55	55	60	60	60	60	60	60	70	70	70	75	75	80	80	80
Size of Steam Opening ..... Inches	5	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8
Size of Return ..... Inches	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve ..... Inches	1½	1¼	2	2	2	2	2	2½	2½	3	3	3	3½	3½	4	4	2-2½
Height of Water-line ..... Inches	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
Height from Floor to Top of Brickwork ..... Inches	77	77	77	83	83	83	90	90	90	96	96	108	108	114	114	120	120

Capacity for Oil, Gas or Stoker—Steam, 3500 to 24,750 sq. ft.
—Water 60% Greater than Steam

Setting Measurements

Number of Boiler	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
A—Diameter of Boiler ... Inches	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
B—Length Boiler ..... Ft In	8-7	10-1	11-7	9-10	11-4	12-10	12-4	13-10	15-4	15-9	16-3	17-10	20-4	18-4	20-4	16-4	20-4
C—Rear Space ..... Inches	17	17	17	22	22	22	22	22	22	24	24	24	24	24	24	28	28
D—Thickness Wall ..... Inches	9	9	9	9	9	9	9	9	9	13	13	13	13	13	13	13	13
E—Length Grate ..... Inches	31	37	43	37	43	49	43	49	55	55	61	61	67	61	67	67	73
J—Width Ash-pit ..... Inches	31	31	31	37	37	37	43	43	43	49	49	54	54	60	60	66	66
F—Thickness Bridge Wall... Inches	9	9	9	9	9	9	13	13	13	18	18	18	18	18	18	18	18
G—Grate to Tube Sheet ..... Inches	14	14	14	17	17	17	23	23	23	23	23	29	29	29	29	29	29
U—Header to Bridge Wall ... Inches	7	8	9	9	10	12	10	11	12½	13	14	14	15½	14	15½	16	17
H—Height Brickwork ..... Inches	77	77	77	83	83	83	90	90	90	96	96	108	105	114	114	120	120
K—Location Steam Supply . Ft In	6-0	7-0	8-0	7-6	8-0	8-9	8-10	9-8	10-4	11-0	11-6	11-10	13-0	12-0	13-0	12-1	13-1
L—Length Over-all ..... Ft In	10-9	12-3	13-9	12-5	13-11	15-5	14-11	16-5	17-11	18-10	21-4	20-11	23-5	21-5	23-5	21-9	23-9
M—Height Water-line ..... Inches	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
N—Height Side Five ..... Inches	36	36	36	39	39	39	42	42	42	45	48	51	51	58	58	63	63
O—Diam. Breeching Conn. ... Inches	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
P—Anchor Bolt Ctr. Ash-pit Inches	8	8	8	8	8	8	8	8	8	8	8	11	11	11	11	11	11
Q—Anchor Bolt Ctr. Ash-pit Inches	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
**R—Height Brick Shell ... Inches	47	47	47	50	50	50	53	53	53	56	56	63	63	66	66	69	69
S—Top Five Space ..... Inches	7	7	7	7	7	8	8	8	8	8	8	10	10	10	10	10	10
*T—Length Brick Shell ... Inches	36	42	54	36	48	60	54	66	80	84	102	90	108	90	108	84	102
V—Length of Arch ..... Ft In	5-3	6-3	7-3	5-0	7-6	8-0	8-1	8-11	9-9	10-0	10-6	10-10	12-0	11-0	12-0	11-1	12-1
W—Width Overall ..... Ft In	5-0	5-6	5-9	6-0	6-3	6-6	6-6	6-6	6-6	7-8	7-8	8-2	8-2	8-8	8-8	9-2	9-2
**Z—Width Double Setting Ft In	10-3	10-3	10-3	11-3	11-3	11-3	12-3	12-3	12-3	14-3	14-3	15-3	15-3	16-3	16-3	17-3	17-3
*Number Common Brick	2200	2800	3400	2600	3500	3100	3700	4000	4300	6000	6600	7350	7900	7800	8300	8300	9300
Number Fire Brick	85	85	85	100	100	100	130	130	130	155	155	215	215	265	265	310	310
*Common Brick for Two Boilers	3900	4900	6100	4900	6400	5350	6500	7000	7550	10500	11500	12750	13700	13200	14200	15000	16000

*Foundation not included. Key letters N and V apply only to boiler settings with breeching connection at front as shown above.
**Key letters R and T apply only to boiler settings with breeching connection at rear and letter Z applies only to Double settings both as on Brick-set Up Draft Boiler diagram on preceding page.

The Plumbing and Heating Co. [illegible]

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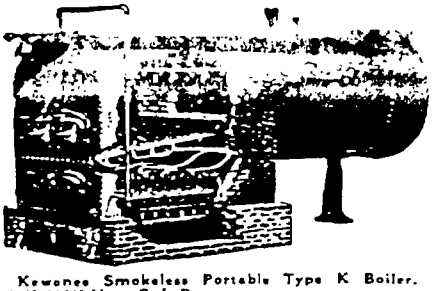


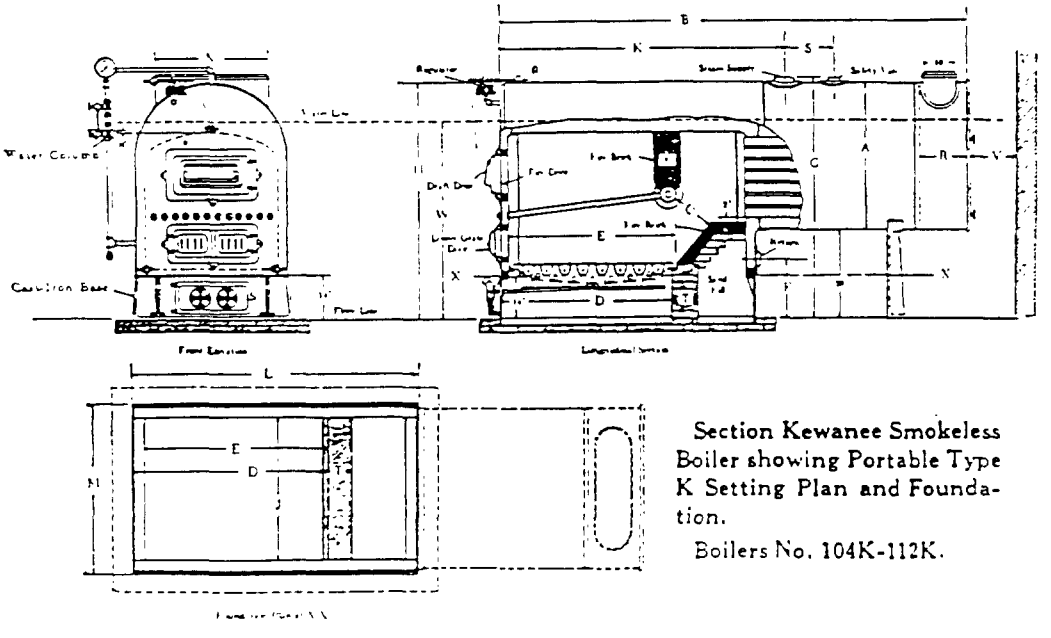
Kewanee Smokeless Portable Type K Boiler. 104K-112K Have C. I. Base.

K[illegible] Smokeless Portable [illegible]e K Boilers

There is a Kewanee boiler the right size for every building from the 2-apartment building to the largest hotel, factory, or business block. Portable Type K Boiler for smaller buildings is constructed along the same lines that the larger Kewanee Boilers are built. It is made in both the smokeless and up-draft types. The Smokeless boiler in this type K has a rated capacity of from 1500 to 15200 square feet in steam, and from 2450 to 25000 square feet in water.

Specifications

Number of Boiler	104 K	105 K	106 K	107 K	108 K	109 K	110 K	111 K	112 K	113 K	114 K	115 K	116 K	117 K	118 K	119 K	120 K
Capacity, Steam sq ft	1500	1900	2200	2500	2900	3400	3800	4400	5200	6200	7100	8100	9500	10900	12300	13200	15200
Capacity, Water sq ft	2450	3100	3600	4100	4800	5600	6300	7400	8600	10100	11800	13300	15700	18000	20400	21600	25000
Approximate Weight Pounds	5000	6600	8100	8500	7500	8100	9200	9900	10600	12600	14000	16500	18100	20300	22200	24000	26000
Diameter of Boiler in	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler Overall ft. in	9-11	11-5	12-11	11-2	12-8	14-2	13-8	15-2	16-4	17-1	19-2	19-4	21-10	18-10	21-10	19-10	21-10
Width of Firebox in	30	30	30	36	36	36	42	42	42	48	48	53	53	59	59	65	65
Length of Firebox in	45	51	57	54	60	66	66	72	78	78	84	90	96	90	96	96	102
Heating Surface sq ft	157	185	220	234	271	308	338	386	425	500	580	677	787	876	987	1090	1230
Area of Upper Grate sq ft	5 8	7 2	8 4	8 0	10 1	11 4	11 8	13 2	13 0	17 1	19 1	21 1	23 3	23 3	25 8	28 5	31 3
Diameter of Breeching in	20	20	22	22	22	24	24	27	27	30	30	34	34	36	36	38	38
Diameter of Stack in	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Minimum Height of Stack ft	40	40	40	45	45	45	45	50	50	55	55	55	55	65	65	65	65
Diameter of Breeching Two Boilers in	26	26	28	28	30	32	32	34	34	36	38	42	42	44	45	48	50
Diameter of Stack, Two Boilers in	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Minimum Height of Stack, Two Boilers ft	60	60	60	55	55	55	55	55	55	65	65	65	70	70	75	75	75
Size of Steam Opening in	6	6	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8
Size of Return in	3	3	3	4	4	4	4	4	5	5	6	6	6	6	6	6	6 Two 2½
Size of Safety Valve in	1½	1½	2	2	2	2	2	2½	2½	3	3	3	2½	3½	4	4	4
Height of Waterline in	55	56	55	56½	56½	56½	61	61	61	66	66	75	76	80	80	85½	85½
Height from Floor to Top of Boiler in	65	65	65	71	71	71	77	77	77	83	83	93	93	98	98	105	105



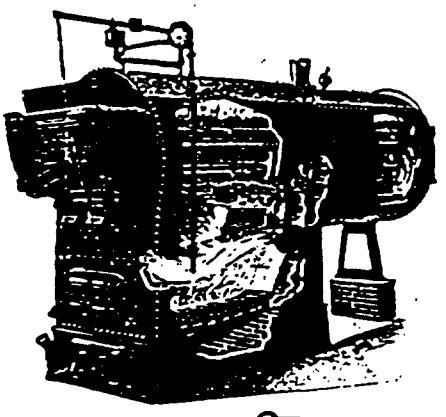
Section Kewanee Smokeless Boiler showing Portable Type K Setting Plan and Foundation.

Boilers No. 104K-112K.

Kewanee Smokeless Portable Boiler

The Kewanee Smokeless Portable firebox heating boiler eliminates brick setting. Built of riveted steel, it goes into the building in one piece. Any kind of coal is burnt smokelessly and the extreme heat of burning oil is developed and absorbed with high efficiency by the large water content kept in rapid circulation by the water grate.

Boiler No. 314 (and smaller) constructed with enlarged cylinder. Iron ash pit furnished with Boiler No. 309 (and smaller). Boiler No. 310 (and larger) set on brick foundation. Manholes are provided on 54-inch boilers and larger.

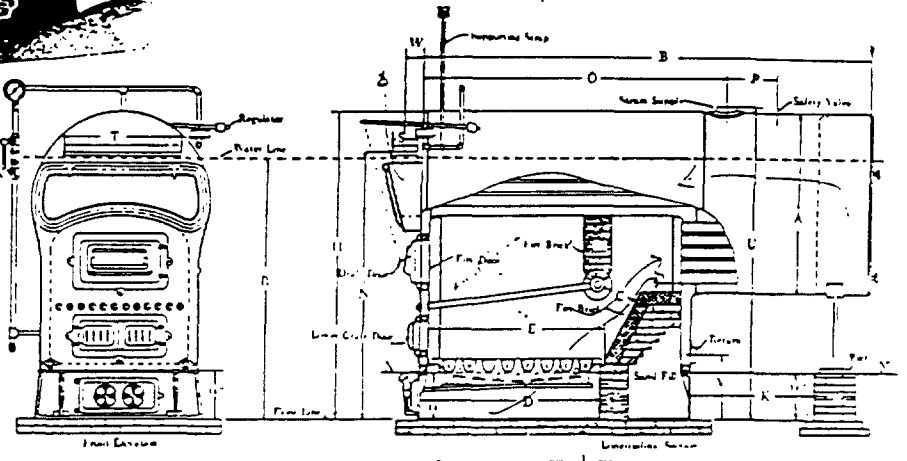


Section Kewanee Smokeless Portable Boiler

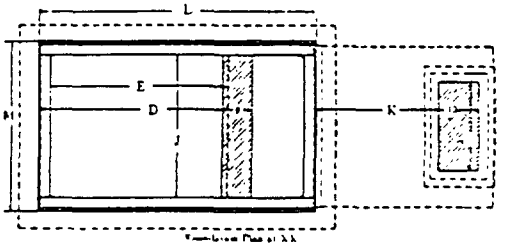
Nos. 307-309 have bell top and cast iron base as shown above.

Nos. 310-314 have bell top and brick base.

Nos. 315-324 with brick base as shown on opposite page.



Section Kewanee Smokeless Boiler Showing Portable Type Setting Plan Boilers Nos. 307-314



Note—Boilers Nos. 310, 311, 312, 313 and 314 are constructed with bell top as shown above, but are set on brick foundation instead of cast iron base as shown. Manhole is located in rear head.

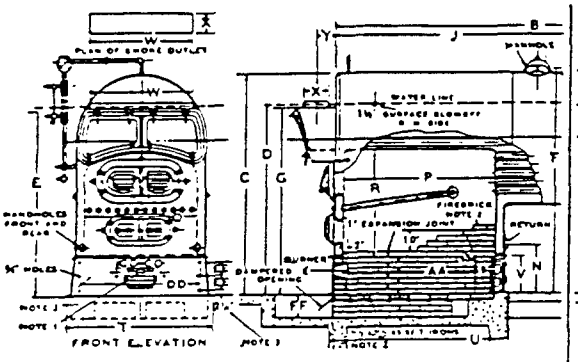
Specifications

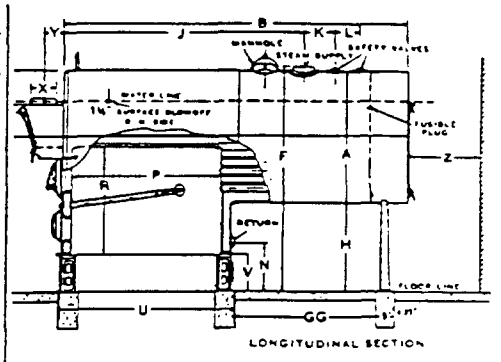
Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Capacity, Steam ...Sq Ft	3390	4260	5020	6100	6950	7650	8290	9000	10100	10820	12770	14740	16660	18420	20410	21690	29040	36810
Capacity, Water.....Sq Ft	5420	6820	8030	9760	11120	12240	13260	14400	16160	17310	20430	23580	26980	29470	32660	34700	46460	58900
Oil, Gas or Stoker.																		
Capacity, Steam. ..Sq Ft	5050	5990	6650	7580	8430	9290	10070	10920	12260	13130	15500	17900	20460	22360	24800	26350	35300	44700
Furnace Volume...Cu Ft	51.8	58.1	64.3	83.1	89.4	96.9	114.9	124.4	152.1	164.0	181.0	193.9	220.5	231.2	256.0	272.5	367.8	388.9
Appros. Weight ..Pounds	7300	8000	8600	9600	10200	10900	13300	14000	15500	16200	19300	21100	23100	24400	26600	27800	34300	40000
Approximate Weight Pounds	7800	8600	9300	10400	11100	11900	14500	15300	16900	17800	20900	22900	25000	26300	28800	30000	37000	43000
Diameter of Boiler ...Inches	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Lgth Boiler Overall. Ft In	9-1	10-5	11-5	10-11	11-11	12-11	12-11	13-11	15-3	16-3	15-9	17-9	16-7	17-11	17-10	18-10	20-1	24-1
Width of Fire-box.....Inches	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box....Inches	54	60	66	72	78	84	78	84	90	96	90	96	96	102	102	108	114	120
Heating Surface .... Sq Ft	297	352	391	446	496	545	592	643	721	773	912	1053	1204	1316	1458	1549	2074	2629
Area of Upper Grate..Sq Ft	8.8	10.1	11.4	12.9	14.7	16.5	17.1	18.5	20.0	21.4	23.5	25.9	28.5	29.9	32.6	34.6	41.7	44.8
Diam. of Breeching ...Inches	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack ...Inches	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Min. Height of Stack ...Feet	50	55	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers.....Inches	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers .....Inches	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers ...Feet	60	65	65	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening Inches	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	10	10
Size of Return ..... Inches	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve ..Inches	2	2	2	2½	2½	2½	3	3	3	3½	3½	4	4	4	2-2½	2-3	2-3	2-3½
Height of Waterline Inches	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	97	105	105
Height Floor to Top of Shell ..... Inches	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115	121	121
Distance Required to Open Rear Fire Doors In	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

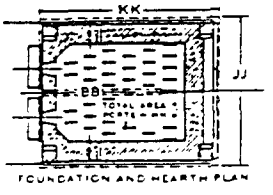
Rated Capacity for Water Boiler, 60% Greater than Steam.

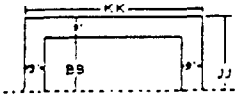
For Plumbing and Heating Contractors

KEWANEE Down-Draft Firebox Boiler "300" Series For Oil, Gas or Stoker









All the extreme heat of burning oil is developed and absorbed in "300" Series. Even heaviest loadings are carried with a steady water line.

Equipment: Steel base assembled with four cast iron copper posts front and rear panels have 8¼ x 11½" opening and cover plate; backstand except 376-379, fire, grate and flue doors

Also flue and tube cleaners with handles, socket wrench.

Manhole furnished on boiler numbers 380 and larger.

Trimmings for Steam only Safety valve, steam gauge with syphon and cock, water column with water gauge, gauge and cocks

For Cut-away View "300" Series Oil or Gas, see page 24.

Footings may be required under base corner posts depending on soil conditions

Steam Supply and Safety Valve located nearer front on 376-7-8-9 and 380

Note 1. For one burner only, locate on center line of boiler and use single hearth plate instead of double.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

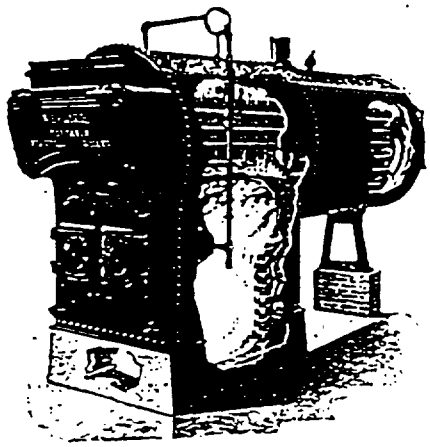
Note 3. This dimension 1¼" on boiler numbers 376-381 inclusive

Note 4. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 385 to 390 additional furnace height and volume for S H B I standard may be provided in base Or extended water leg may be ordered, and two firedoors

Specifications and Setting Measurements

	3" Tubes					4" Tubes								
Boiler Number	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390
Rating—Steam Radiation ..... Sq Ft	4250	4660	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation ..... Sq Ft	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu per Hour ..... 1000 s	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) ..... Sq Ft	250	266	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu Ft	30 4	34 8	39 1	43 5	52 1	60 8	73 8	86 8	108 5	130.2	151.8	173 5	216 9	260 3	303.6
Net Furnace Volume Oil-Gas .. Cu Ft	36 3	38 3	69.6	22 2	92 1	104 5	119 6	132 5	162 2	170.7	198.2	228 3	266 8	304 4	323 3
Firebox Vol Above Mud Ring .. Cu Ft	49 1	50 7	60 1	62 1	79 5	89 4	97 0	110 4	130 9	137.2	160 2	183 2	207 8	231.9	245 5
Average Firebox Height (See Note 4) In	37 6	37.6	39 3	39.3	44 4	44 4	43 8	43.8	46 6	46.6	49.4	49.5	49 5	51.0	51 0
Added Furnace Hgt. for Stoker (SHBI) In	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	7	12	15	20
H—Firebox Volume ..... Cu. Ft	.....	.....	.....	.....	.....	.....	.....	.....	.....	151 9	176 4	209 2	258 2	300 2	341.9
Plan Area ..... Sq Ft	15 7	16 2	18 4	18 9	21 5	24 2	26 6	30 3	33 7	35 3	38 9	44 5	50 4	54 6	57 8
Breeching Diameter ..... In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter ..... In	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height ..... Ft	45	50	45	50	45	55	50	60	60	70	70	70	85	85	100
Breeching Diameter Two Boilers ... In	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter Two Boilers ..... In	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers ..... Ft	55	60	55	60	55	65	60	70	70	80	80	80	95	95	110
Steam Supply Size ..... In	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size ..... In	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size ..... In	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight ..... Lb	6200	6900	7600	8000	9100	10100	12500	14100	16100	18900	21200	23200	27500	31500	33500
A—Boiler Diameter ..... In	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length ..... Ft In	8-3	9-3	8-7½	9-5	11-2½	12-11	12-8½	14-9	14-11	17-4	16-5	17-0½	20-7½	19-11	22-8
C—Boiler Height Overall ..... In	80	80	86	86	94	94	101	101	107	107	113	115	115	125	125
D—Water Line ..... In	70	70	73	73	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height ..... In	68	68	71	71	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height ..... In	83	83	88	88	96	96	103	103	109	109	113	117	117	127½	127½
G—Breeching Connection Height ..... In	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height ..... In	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location ..... Ft In	1-10	2-0	1-10	2-0	2-0	9-8	9-8	10-6	10-8	11-6	11-6	11-8	13-4	13-2	14-0
K—Safety Valve Location ..... In	16	16	16	16	16	15	14	15	15	21	18	21	28	26	36
L—Safety Valve Location ..... In	.....	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	12	12
N—Return Height ..... In	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width ..... In	36	36	42	42	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length ..... In	62	64	62	64	64	72	72	82	82	86	86	90	102	102	108
R—Firebox Height ..... In	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
T—Base Width ..... In.	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length ..... In	71½	73½	72	74	74	82	83	93	93	97	97	101½	113½	113½	119½
V—Base Height ..... In	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length ... In	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width ... In	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location . In	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance ..... In	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Furnace Length ..... In	53	55	53	55	55	63	63	73	73	77	77	81	93	93	99
BB—Furnace Width ..... In	24	24	30	30	36	36	42	42	48	48	54	60	60	66	66
CC—Burners Location ..... In					8½	8½	9½	9½	11	11	12½	14	14	15	15
DD—Bolt Centers in Plate ..... In	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	73½	73½	79½	79½
EE—Bolt Centers in Plate ..... In	43½	43½	43½	43½	43½	43½	51½	51½	51½	51½	51½	51½	51½	71½	71½
FF—Pit Depth ..... In	9	9	9	9	10	10	10	10	10	11	11	13	13	13	13
GG—Rear Stand Location ..... In					44	57	54	66	69	94	82	82	96	96	114
HH—Total Area Ports or Openings Sq In	64	73	83	92	110	122	155	182	220	273	320	365	455	545	640
JJ—Foundation Width ..... In	54	54	66	66	65½	65½	70½	76½	76½	88	88	88	94	94	94
KK—Foundation Length ..... In	72½	74½	73	75	75	83	84	94	94	98	98	102½	114½	114½	120½
Size of Dampered Openings ..... In	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2-7x16	2-8x17	2-8x20	2-9x20	2-9x25	2-10x22	2-10x25
Number of Fire Brick	375	390	410	425	450	480	575	635	660	680	715	780	835	940	1020
*Outside Surface to Cover ..... Sq Ft	110	120	130	140	185	210	220	255	280	320	330	360	435	450	510

*Front smokebox and front head below smokebox NOT included



Kewanee Up-Draft Portable Boiler

Kewanee Up-Draft Portable firebox heating boilers need no brick setting and go into the building in one piece. They burn any kind of fuel. Every joint and seam is firmly riveted at the factory. Sufficient handholes are provided for cleaning purposes, and in portable boilers 54 inches and larger, manholes are included.

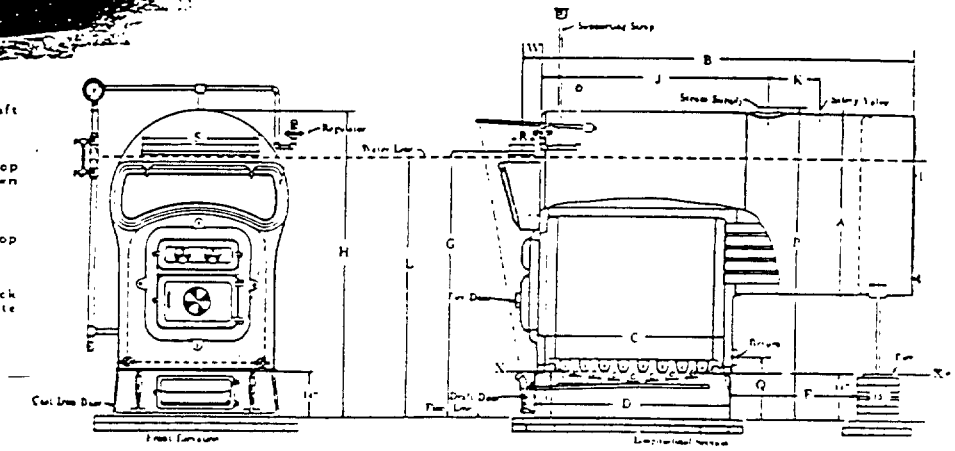
Boiler No. 414 (and smaller) is made with enlarged cylinder as shown. Iron ash pits, as illustrated furnished with No. 409 and smaller. No. 410 (and larger) set on brick foundation. No. 415 and larger made with firebox same width as cylinder.

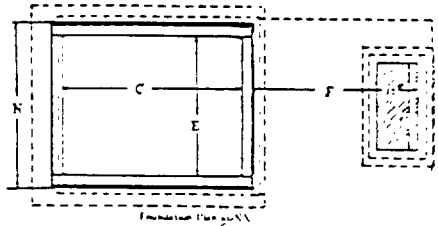
Section Kewanee Up-Draft Portable Boiler

Nos. 407-409 have bell top and cast iron base as shown above.

Nos. 410-414 have bell top with brick base.

Nos. 415-424 have brick base, as shown on opposite page.





Section Kewanee Boiler—Showing Portable Type Setting Plan Boilers No. 407-414

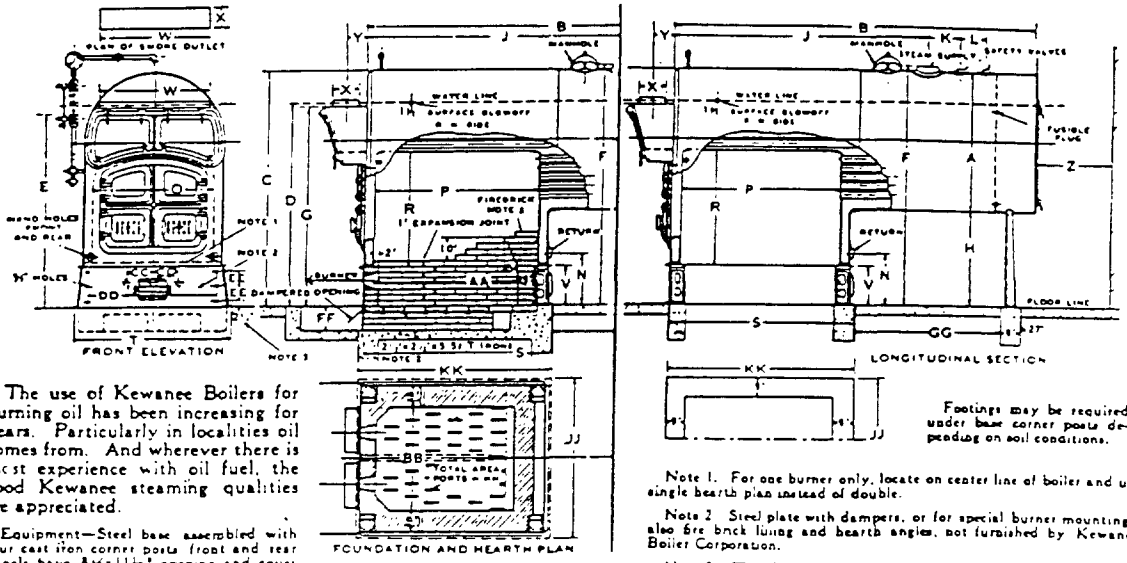
Note—Boilers Nos. 410, 411, 412, 413 and 414 are constructed with bell top as illustrated above but are set on brick base instead of cast iron ash-pit. In Nos. 410 and 411 the manhole is located in rear head; in 412 and larger it is in cylinder.

Specifications

Number of Boiler	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Capacity, Steam ... Sq Ft	2550	3340	4170	4300	5130	6070	7440	8760	8700	10310	12420	14560	16350	18240	21200	23950	30930	33960
Capacity, Water ... Sq Ft	4080	5340	6670	6880	8210	9710	11900	14020	13920	16500	19870	23300	26160	29180	33920	38320	49490	54370
Oil, Gas or Stoker																		
Capacity Steam ... Sq Ft	4730	5270	6340	7040	7900	8760	9600	10640	11480	13220	15780	17680	19850	22150	25730	29080	37500	40480
Furnace Volume ... Cu Ft	35.9	42.3	48.6	50.3	57.9	65.3	84.2	93.9	96.1	107.1	127.4	140.5	159.8	174.6	193.3	209.9	267.9	289.1
Approximate Weight ... Pounds	6400	6800	7600	8300	9000	9700	12000	12800	14600	15900	18800	20200	22000	23600	25800	28600	34300	37100
Approximate Weight ... Pounds	6900	7400	8300	9000	9800	10600	13200	14100	15900	17300	20400	22000	24000	25700	28000	31000	37000	40000
Diameter of Boiler ... Inches	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78	84	84
Length of Boiler ... Ft. In	8-7	9-6	11-1	10-0	11-1	12-1	12-5	13-7	14-4	16-2	15-9	17-4	15-11	17-6	17-11	19-11	20-1	22-1
Width of Fire-box ... Inches	36	36	36	42	42	42	48	48	53	53	59	59	65	65	71	71	77	77
Length of Fire-box ... Inches	38	44	50	44	50	56	56	62	56	62	62	68	68	74	74	80	80	86
Height of Fire-box ... Inches	41½	41½	41½	44	44	44	49	49	49	49	52	52	54½	54½	55	55	58	58
Heating Surface ... Sq Ft	278	310	373	416	465	515	565	626	676	778	929	1040	1168	1303	1514	1711	2209	2427
Area of Grate ... Sq Ft	9.6	11.1	12.6	12.9	14.7	16.5	18.8	20.8	20.7	22.9	25.5	28.0	30.8	33.5	36.6	39.6	42.9	46.1
Diameter of Breeching ... Inches	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack ... Inches	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack ... Feet	50	50	55	55	55	60	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers ... Inches	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52	56	56
Diam. of Stack Two Boilers Inches	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers ... Feet	60	60	60	65	65	70	70	70	75	75	75	80	80	80	90	100	100	110
Size of Steam Opening ... Inches	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	10	10
Size of Return ... Inches	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve ... Inches	2	2	2	2	2½	2½	3	3	3	3	3½	3½	4	4	2-2½	2-3	2-3	2-3
Height of Water Line ... Inches	71	71	71	76	76	76	83	83	87	87	90	90	96	96	97	97	105	105
Height Floor to Top of Shell Inches	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115	121	121
Distance Required to Open Rear Flue Doors ... Inches	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40	43	43

Rated Capacity for Water Boiler, 60% Greater than Steam.

KEWANEE Up-draft Firebox Boiler "400" Series For Oil, Gas or Stoker



The use of Kewanee Boilers for burning oil has been increasing for years. Particularly in localities oil comes from. And wherever there is most experience with oil fuel, the good Kewanee steaming qualities are appreciated.

Equipment—Steel base assembled with four cast iron corner posts front and rear panels have 8½x11½" opening and cover plate, backstand, fire and flue doors, flue cleaner and handle. Manhole furnished on all sizes

Trimmings for Steam Only—Safety valve steam gauge with syphon and cock, water column with water gauge, glass and cocks.

For Cut-away View "400" Series Oil-Gas, see page 24. And for Stoker, Similar to page 2.

Footings may be required under base corner posts depending on soil conditions.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special burner mountings also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1½" on No. 480 and 481.

Note 4. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 485 to 490 additional furnace height and volume for S H B I. standard may be provided in base. Or extended water leg may be ordered, and two firedoors.

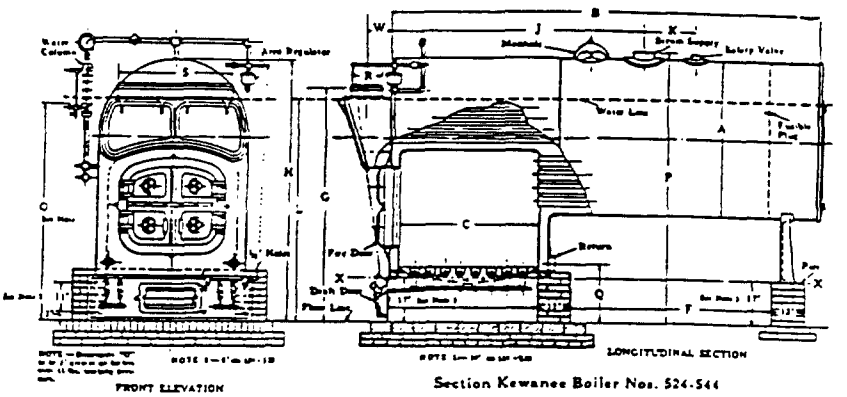
Specifications and Setting Measurements

Boiler Number	480	481	482	483	484	485	486	487	488	489	490
Rating—Steam Radiation Sq Ft	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq Ft	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq Ft	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu Ft	52.1	60 8	73.8	86.8	108 5	130 2	151.8	173.5	216 9	260 3	303 6
Net Furnace Volume, Oil-Gas Cu Ft.	70 0	79 4	119 6	137 5	162 2	170 7	198.2	228 3	260 8	304 4	323.3
Firebox Volume Above Mud Ring Cu Ft	62.1	69.6	97.0	110.4	130 9	137 2	160.2	183 2	203 8	231.9	245.5
Average Firebox Height (See Note 4) In	44.4	44 4	43.8	43.8	46 6	46 6	49.4	49 5	49 5	51 0	51 0
Added Furnace Height, for Stoker (SHBI) In						5	5	7	12	15	20
Hi-Firebox Volume Cu. Ft						151 9	176.4	209.2	258 2	300 2	341.9
Plan Area Sq Ft	16 8	18.8	26.6	30.3	33.7	35.3	38.9	44.5	50.4	54 6	57.8
Breeching Diameter In	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft	45	55	50	60	60	70	70	70	85	85	100
Breeching Diameter, Two Boilers In	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter Two Boilers In	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft	55	65	60	70	70	80	80	80	95	95	110
Steam Supply Size In	8	8	8	8	8	8	8	8	10	10	10
Return Size In	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight Lb	9300	10400	12200	13600	15800	18100	20300	22300	26400	30200	33600
A—Boiler Diameter In	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length Ft. In	11-5	13-1½	13-4½	15-5½	15-6½	18-0½	17-0	17-7½	21-3½	20-7	23-4
C—Boiler Height Overall In	94	94	101	101	107	107	113	115	115	125	125
D—Water Line In	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height In	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height In	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height In	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height In	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location Ft. In	8-0	9-0	10-0	10-9	11-0	11-6	11-6	12-0	13-9	13-6	14-0
K—Safety Valve Location In	13	13	13	16	18	21	18	21	28	28	42
L—Safety Valve Location In					12	12	12	12	12	12	12
N—Return Height In	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width In	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length In	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height In	49	49	49	49	52	52	54½	55	55	57	57
S—Base Length In	60	66	83	93	93	97	97	101½	113½	113½	119½
T—Base Width In	59½	59½	66	66	72	72	78	84	84	90½	90½
V—Base Height In	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length In	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width In	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location In	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance In	30	30	33	33	36	36	39	42	42	45	45
AA—Furnace Length In	41	47	63	73	73	77	77	81	93	93	99
BB—Furnace Width In	36	36	42	42	48	48	54	60	60	66	66
CC—Burners Location In	8½	8½	9½	9½	11	11	12½	14	14	15	15
DD—Bolt Centers in Plate In	49½	49½	55½	55½	61½	61½	67½	73½	73½	79½	79½
EE—Bolt Centers in Plate In	4½	4½	5½	5½	5½	5½	5½	5½	5½	7½	7½
FF—Pit Depth In	10	10	10	10	10	11	11	12	12	13	13
GG—Rear Stand Location In	64	78	63	76	78	86	92	92	106	96	120
HH—Total Area Ports or Openings Sq In	110	127	155	182	230	273	320	365	455	545	640
JJ—Foundation Width In	65½	65½	70½	70½	76½	82	88	88	88	94	94
KK—Foundation Length In	61	67	84	94	94	98	98	102½	114½	114½	120½
Size of Dampered Opening	7x16	7x16	7x22	7x26	2-7x16	2-8x17	2-8x20	2-9x20	2-9x25	2-10x27	2-10x32
Number of Fire Brick	360	420	575	635	660	680	715	780	835	940	1000
*Outside Surface to Cover Sq Ft	185	210	235	275	290	335	345	375	450	465	520

*Front smokebox and front head below smokebox NOT included.

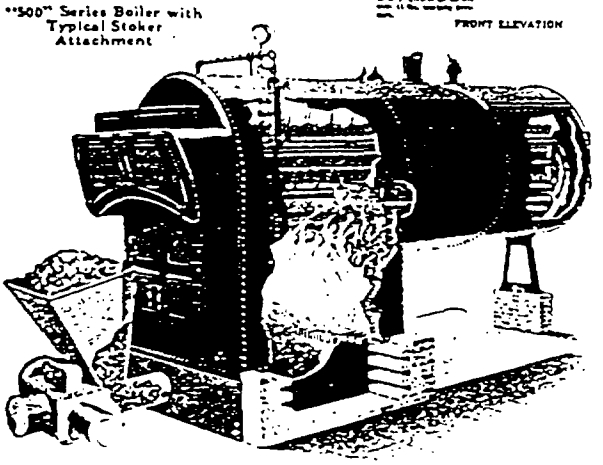
Kewanee Up-Draft Portable Boiler

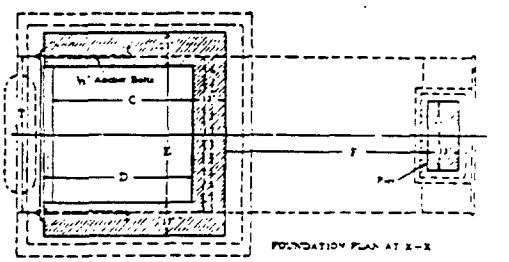
The high-class workmanship on Kewanee Boilers is proverbial in the Trade and in the Architectural profession. This "500" series reflects the best Kewanee practice based on generations of continuous experience.



Section Kewanee Boiler Nos. 524-544

"500" Series Boiler with Typical Stoker Attachment





Setting Plan and Foundation

In the "500" series Kewanee Steel-Riveted Boilers the grate area and firebox are enlarged somewhat and a greater number of return tubes is provided.

There is a corresponding increase in heating surface, steam space, disengaging area, furnace volume and water content, all in the correct ratio and proportionate to the requirements for definite service condition.

Specifications and Setting Measurements

Number of Boiler	524	526	528	530	532	534	536	538	540	542	544
Capacity, Steam Sq Ft	7660	8770	10160	10310	13720	16380	18340	19460	21840	25540	26880
Capacity, Water Sq Ft	11300	14030	16260	16500	21950	26210	29340	31140	34940	40860	46210
Capacity, Steam Oil Gas or Stoker Sq. Ft	10110	11390	12920	14650	16660	19890	22270	23630	26520	31010	35070
Furnace Volume, Oil Gas or Stoker Cu. Ft	72.2	93.1	102.9	106.4	128.5	152.9	165.7	188.4	203.0	239.9	259.0
Approx. Weight, Oil Gas or Stoker Pounds	10150	11250	12100	13500	14900	18100	19300	20800	22300	24200	26300
Heating Surface Sq Ft	600	670	760	862	980	1170	1310	1390	1560	1824	2063
Area of Grate Sq Ft	18.2	20.8	22.7	22.9	27.2	30.5	32.8	36.1	38.8	39.5	42.5
Height of Firebox Inches	44	49	49	49	49	52	52	54½	54½	55	55
Diameter of Breeching Inches	24	26	26	28	28	30	32	34	34	36	36
Diameter of Stack Inches	22	24	24	26	26	28	30	32	32	34	34
Maximum Height of Stack Feet	60	65	70	80	80	80	90	80	95	85	95
Diameter of Breeching, Two Boilers Inches	34	38	38	40	40	44	46	50	50	52	52
Diameter of Stack, Two Boilers Inches	30	34	34	36	36	40	42	46	46	48	48
Min. Height of Stack, Two Boilers Feet	70	75	80	90	90	90	100	90	105	95	105
Size of Steam Opening Inches	6	8	8	8	8	8	8	8	10	10	10
Size of Return Inches	4	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve Inches	2½	3	3	3	3½	4	4	2-2½	2-3	2-3	2-3
Diam. and Length Direct Tubes Inches	3x78	4x65	4x73	4x87	4x97	4x90	4x103	4x84	4x97	4x102	4x119
Diam. and Length Return Tubes Inches	3x143	3x130	3x144	3x153	3x175	3x168	3x187	3x168	3x187	3x186	3x209
Dia. Required to Open Flue Doors Inches	28	32	32	32	32	35	35	37	37	40	40
Approximate Weight Pounds	11160	12560	13550	15000	16640	20040	21500	23250	24670	26640	28670
A—Diameter of Boiler Inches	54	60	60	60	60	66	66	72	72	78	78
B—Length of Boiler Ft In.	13-5	12-5	13-7	14-4	16-2	15-9	17-4	15-11	17-6	17-5	19-4
C—Length of Grate Inches	62	62	68	62	74	74	80	80	86	80	86
D—Length of Ash-pit Inches	66	66	72	66	78	78	84	84	90	84	90
E—Width of Ash-pit Inches	42	48	48	53	53	59	59	65	65	71	71
F—Ash-pit Wall to Pier Ft In.	6-0	6-8	5-4	6-6	7-0	6-6	7-6	6-0	7-0	7-10	9-0
G—Height of Breeching Connection Inches	80	88	88	90	90	93	93	100	100	101	101
H—Height of Boiler Inches	89	98	98	101	101	107	107	113	113	115	115
J—Location of Steam Supply Ft In	8-6	8-8	9-2	8-11	10-5	10-4	11-2	10-7	11-9	11-3	10-11
K—Location of Safety Valve Inches	16	16	18	21	23	26	34	16	16	31	46
L—Height of Water-line Inches	76	83	83	87	87	90	90	96	96	97	97
O—Height of Water Column Inches	73½	81	81	84	84	87½	87½	93½	93½	94	94
P—Height of Steam Supply Inches	95	99	99	103	103	109	109	115	115	117	117
Q—Height of Return Inches	19	20	20	23	23	23	23	23	23	23	23
R—Width of Breeching Connection Inches	10	12½	12½	12½	12½	15	15	17	17	17	17
S—Length of Breeching Connection Inches	42	46	46	46	46	50	50	54	54	60	60
T—Ctr. to Ctr. Bolts in Ash-pit Front In.	48	54	54	60	60	66	66	72	72	78	78
W—Boiler to Center of Breeching Inches	8	9½	9½	9½	9½	10½	10½	11½	11½	11½	11½
*Number of Common Brick	540	560	590	710	770	790	820	850	880	885	930
Outside Surface to Cover Sq Ft	185	190	220	250	280	290	310	315	345	385	425

*Foundations not included. Rated Capacity for Water Boiler, 60% Greater than Steam.

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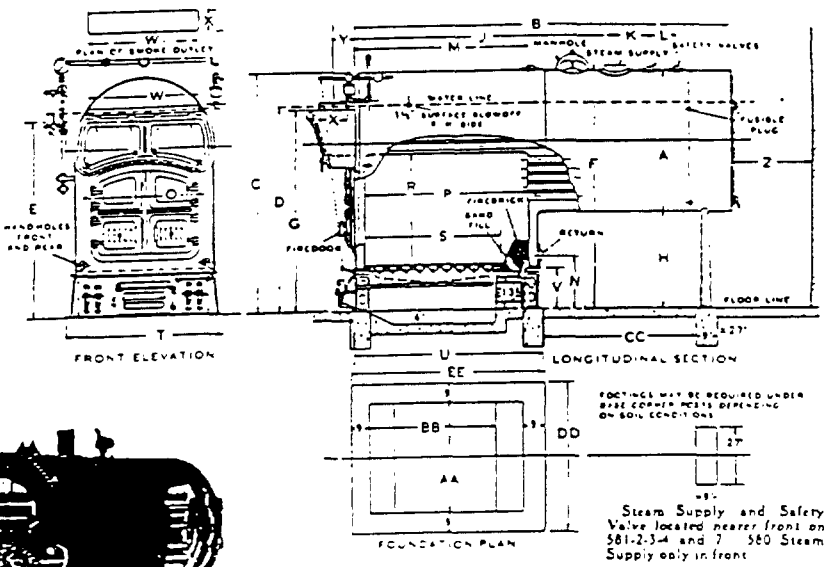
24283

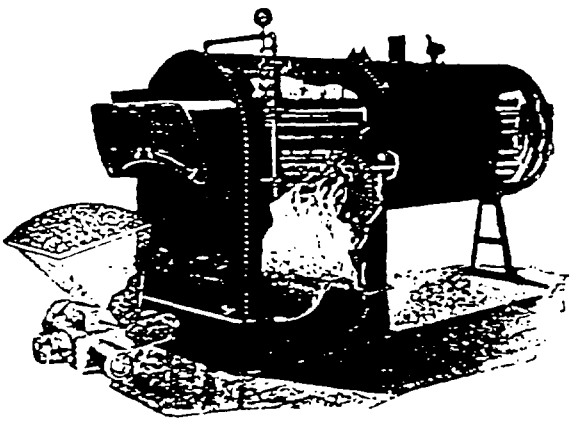
KEWANEE Up-Draft Firebox Boiler

"500" Series For Coal

The high-class workmanship on Kewanee Boilers is proverbial in the Trade and in the Architectural profession. This "500" series reflects the best Kewanee practice based on generations of continuous experience.



"500" Series
Riveted Up-Draft Firebox Boiler
With Two-Pass Three Inch Tubes



Steam Supply and Safety Valve located nearer front on 581-2-3-4 and 7. 580 Steam Supply only in front

"500" series conforms to the A.S.M.E. boiler code for construction 15 lbs. and for rating with the S.H.B.I. simplified practice recommendation. Also built for 100-150 lb pressures.

Equipment—Steel base assembled with cast iron ash pit front and four cast iron corner posts; heavy rocking or dumping grates; backstand, fire and flue doors. Manhole furnished on No. 580 and larger. No fire brick furnished. Bridgewall omitted 576-581

Firing Tools—Hoe, poker, slice bar, flue cleaner and handle.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks, damper regulator.

For Cut-away View "500" Series Hand-Fired Coal, see page 24.

Specifications and Setting Measurements

Boiler Number		576	577	578	579	580	581	582	583	584	585	586	587	588	589	590
Rating—Steam Radiation	Sq Ft	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation	Sq Ft	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu per Hour	1000's	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.)	Sq Ft	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.)	Sq Ft	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter	In	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter	In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height	Ft	55	60	55	60	60	65	60	70	70	80	80	85	95	100	110
Breeching Diameter, Two Boilers	In	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers	In	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers	Ft	65	70	65	70	70	75	70	80	80	90	90	95	105	110	120
Steam Supply Size	In	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size	In	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size	In	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight	Lb	6100	6700	7300	7900	9000	10000	11500	13000	15200	17300	19300	21200	25000	28400	31700
A—Boiler Diameter	In	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length	Ft In	8-7	9-6½	8-10	9-6½	9-2½	10-6	11-1	12-9	12-10	14-9	14-9	14-9	17-7½	17-9½	20-0½
C—Boiler Height Overall	In	86	86	86	86	94	94	101	101	107	107	113	115	115	125	135
D—Water Line	In	70	70	73	73	79½	79½	84½	84½	89½	89½	94	96½	96½	105	105
E—Water Column Height	In	68	68	71	71	77½	77½	82½	82½	87½	87½	92	94½	94½	103	103
F—Steam Supply Height	In	82	82	88	88	96	96	103	103	109	109	115	115	117	127½	127½
C—Breeching Connection Height	In	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height	In	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location	Ft In	6-0	6-6	6-0	6-6	2-6	2-6	3-0	3-0	3-0	11-0	11-0	3-0	12-4	12-4	13-0
K—Safety Valve Location	In	14	15	14	15	60	16	16	16	15	16	15	16	18	18	18
L—Safety Valve Location	In									12			12	12	12	12
M—Safety Valve Location	Ft. In										7-6	7-6				
N—Return Height	In	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width	In	36	36	42	42	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length	In	50	50	50	50	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height	In	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
S—Grate Length	In	50	50	50	50	50	56	61	61	67	73	73	67	79	79	85
T—Base Width	In	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length	In	59½	59½	60	60	60	66	83	93	93	97	97	101½	113½	113½	119½
V—Base Height	In	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length	In	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width	In	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location	In	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance	In	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Ash Pit Width	In	38	38	42	42	47½	47½	52½	52½	58½	58½	64	70	70	76	76
BB—Ash Pit Length	In	42½	42½	43	43	43	49	56	56	62	68	68	62	74	74	80
CC—Rear Stand Location	In	33	44	36	44	39	48	36	46	48	66	66	62	80	84	84
DD—Foundation Width	In	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88	94	94
EE—Foundation Length	In	60½	60½	61	61	61	61	84	94	94	98	98	102½	114½	114½	120½
Number of Common Brick			No Bridgewall Required					185	185	200	200	220	240	240	315	315
Number of Fire Brick			No Bridgewall Required					48	95	80	60	68	150	160	160	160
*Outside Surface to Cover	Sq Ft	115	125	130	140	155	170	195	225	245	280	295	310	365	400	450

*Front smokebox and front head below smokebox NOT included

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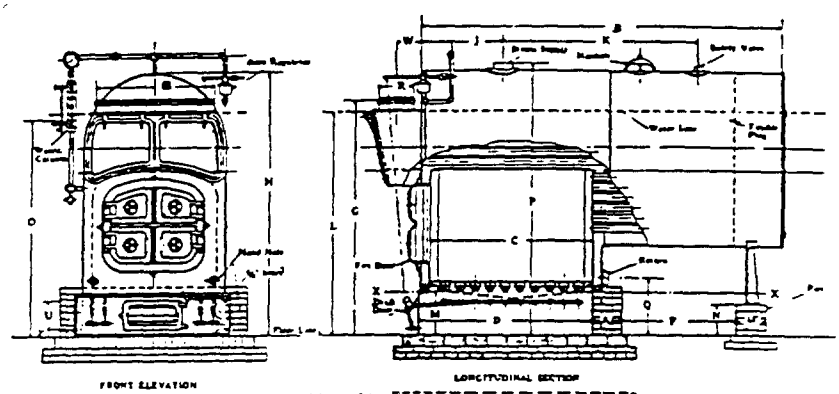
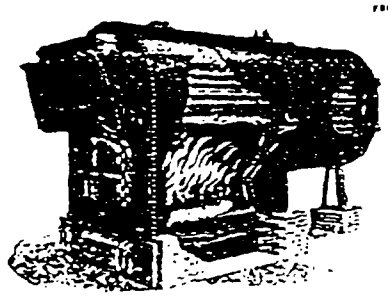
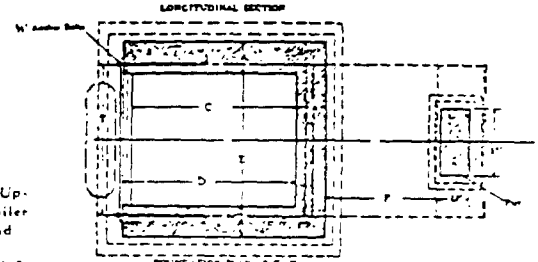
Kewanee Up-Draft Portable Boiler "800" Series





Section Kewanee Up-Draft Bulldog Boiler Setting Plan and Foundation. Boilers Nos. 832-843



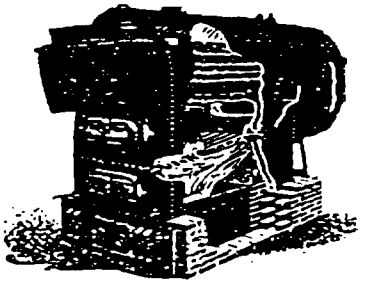
Specifications and Setting Measurements

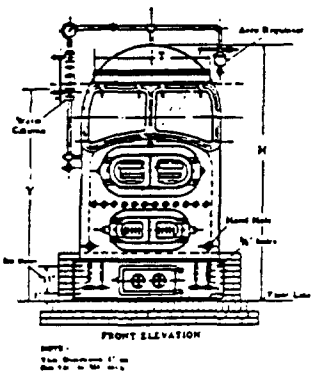
Number of Boiler		832	833	834	835	836	837	838	839	840	841	842	
Capacity, Steam	Sq Ft	7920	8750	8770	10310	12170	14210	16000	17930	20710	24230	30700	35170
Capacity, Water	Sq Ft	12670	14000	14030	16500	19470	22740	25600	28690	33140	38770	49120	56270
Width of Boiler	Inches	48	48	54	54	60	60	66	66	72	72	78	78
Area of Grate	Sq Ft	19 9	21 7	20 8	22 9	25 2	25 2	30 5	32 9	36 3	38 9	42 6	45 5
Heating Surface	Sq Ft	566	625	666	763	910	1018	1143	1281	1479	1731	2193	2512
Width of Firebox	Inches	42	42	48	48	53	53	59	59	65	65	71	71
Height of Firebox	Inches	44	44	49	49	49	49	52	52	54½	54½	55	55
Size of Steam Opening	Inches	8	8	8	8	8	8	8	8	8	8	10	10
Size of Return Opening	Inches	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve Opening	Inches	3	3	3	3	3½	3½	4	4	2-2½	2-3	2-3	2-3
Outside Surface to Cover	Sq Ft	175	190	195	210	235	255	260	285	300	335	370	410
Diameter of Breeching, One Boiler	Inches	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack, One Boiler	Inches	24	24	26	26	28	30	32	32	34	34	38	40
Height of Stack, One Boiler	Feet	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers	Inches	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers	Inches	34	34	36	36	40	42	46	46	48	48	54	54
Height of Stack, Two Boilers	Feet	70	70	75	75	75	80	80	80	90	100	100	110
Approximate Weight	Pounds	11400	12200	13000	14400	16000	17000	19800	21500	23600	25700	29400	32000
A—Thickness of Foundation Walls	Inches	9	9	9	9	13	13	13	13	13	13	13	13
B—Length of Boiler	Ft In	11-5	12-5	10-10	12-1	12-7	13-10	13-0	14-3	13-11	15-8	16-8	18-7
C—Length of Firebox	Inches	68	74	62	68	68	74	74	80	80	86	86	92
D—Length of Ash-pit	Inches	71	77	65	71	72	78	78	84	84	90	90	96
E—Width of Ash-pit	Inches	43	43	49	49	53	53	59	59	65	65	71	71
F—Ash-pit Wall to Pier	Inches	40	45	38	48	48	60	48	57	51	66	78	94
G—Height of Breeching Connection	Inches	82	82	91	91	94	94	99	99	104	104	105½	105½
H—Height of Boiler	Inches	92½	92½	101	101	106	106	112½	112½	118	118	119½	119½
J—Location of Steam Supply	Inches	33	35½	25	33	33½	36	35	32	32½	41½	41½	36½
K—Location of Safety Valve	Inches	74	81½	76½	78	81½	85	88	96	89	92	106	129
L—Height of Water-line	Inches	78	78	87	87	91	91	96	96	101	101	102½	102½
M—Height of Ash-pit	Inches	14	14	14	14	17	17	17	17	17	17	17	17
N—Height of Pier	Inches	10½	10½	13½	13½	12	12	11½	11½	11	11	12½	12½
O—Height of Water Column	Inches	76	76	85	85	88	88	93	93	98	98	99½	99½
P—Height of Steam Supply	Inches	95	95	103	103	106	108	115	115	120	120	122	122
Q—Height of Return	Inches	20	20	20	20	23	23	23	23	23	23	23	23
R—Width of Breeching Connection	Inches	14	14	14	14	15	15	17	17	19	19	21	21
S—Length of Breeching Connection	Inches	38	38	42	42	50	50	54	54	54	54	60	60
T—Ctr. to Ctr. Bolts in Ash-pit Front	Inches	48	48	54	54	60	60	66	66	72	72	78	78
U—Ctr. to Ctr. Bolts in Ash-pit Front	Inches	8	8	8	8	11	11	11	11	11	11	11	11
W—Boiler to Center of Breeching	Inches	10	10	10	10	10½	10½	11½	11½	12½	12½	13½	13½
Size of Steam Supply	Inches	8	8	8	8	8	8	8	8	8	8	10	10
Size of Return	Inches	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve	Inches	3	3	3	3	3½	3½	4	4	2-2½	2-3	2-3	2-3
*Number of Common Brick		380	450	425	450	725	755	725	805	835	865	915	960
Outside Surface to Cover	Sq Ft	175	190	195	210	235	255	260	285	300	335	370	410

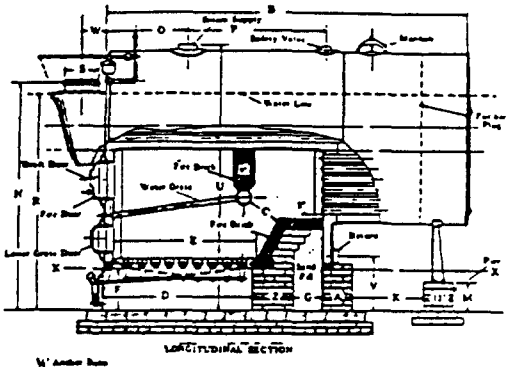
*Foundation not included Capacity for Oil, Gas or Stoker—Steam, 9620 to 42700 sq. ft.; Water, 60% Greater than Steam.

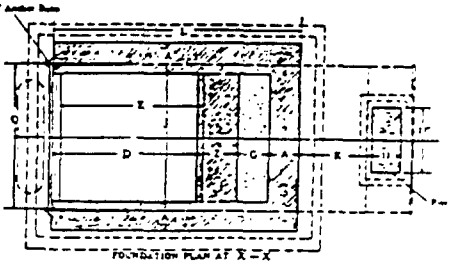
The Plumbing and Heating Catalog

Kewanee Smokeless Portable Boiler "900" Series









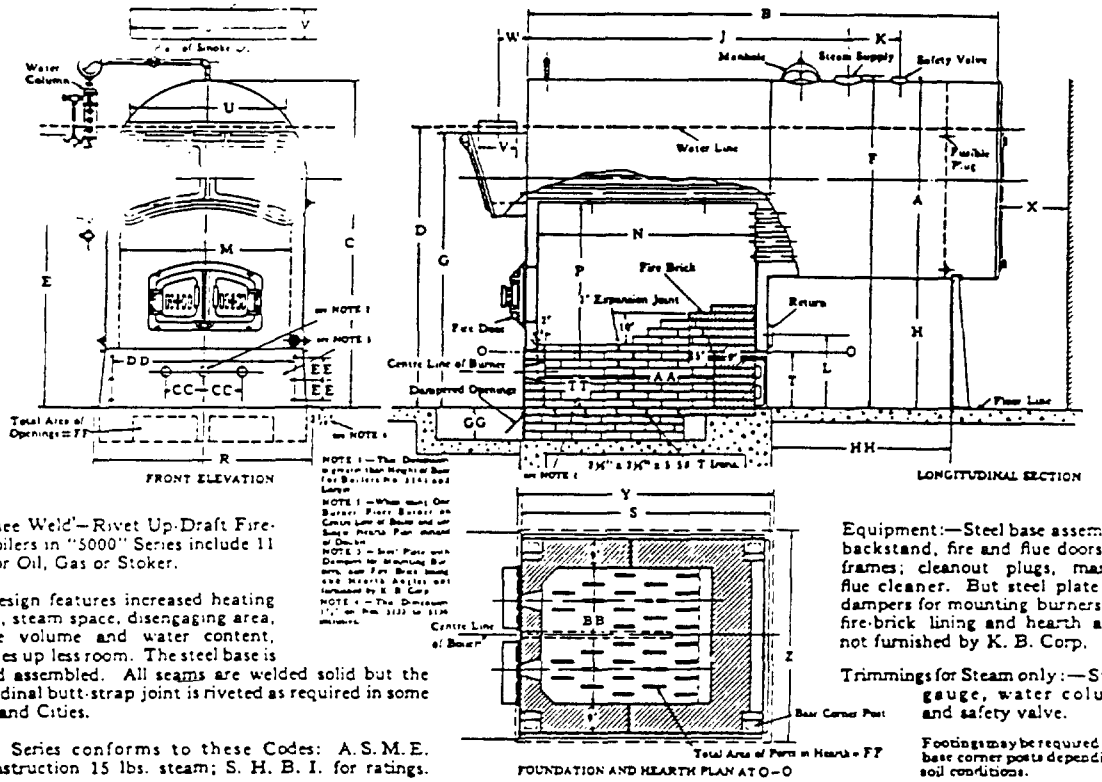
Section Kewanee Smokeless Bulldog Boiler Setting Plan and Foundation. Boilers Nos. 932-943

Specifications and Setting Measurements

Number of Boiler		932	933	934	935	936	937	938	939	940	941	942	943
Capacity, Steam	Sq Ft	7560	8640	10070	10810	12940	15260	17110	18300	20870	21760	29010	36790
Capacity, Water	Sq Ft	12100	14140	16110	17300	20700	24420	27380	29280	33390	34820	46420	58860
Width of Boiler	Inches	48	48	54	54	60	60	66	66	72	72	78	78
Area of Upper Grate	Sq Ft	15	16.5	18.13	19.48	21.03	23.25	25.86	27.09	29.90	31.71	38.59	41.56
Heating Surface	Sq Ft	592	644	719	772	924	1090	1222	1307	1491	1554	2072	2628
Approximate Weight	Pounds	12100	12700	14600	15400	18600	19700	21900	22900	25800	26700	30700	35000
Length of Firebox	Inches	78	84	84	90	90	96	96	102	102	108	114	120
Width of Firebox	Inches	42	42	48	48	53	53	59	59	65	65	71	71
Height of Firebox	Inches	44	44	49	49	49	49	52	52	54½	54½	55	55
Size of Steam Opening	Inches	8	8	8	8	8	8	8	8	8	8	10	10
Size of Return Opening	Inches	5	5	5	5	6	6	6	6	6	6	6	6
Size of Safety Valve Opening	Inches	2½	3	3	3	3½	3½	4	4	2-2½	2-2½	2-3	2-3
Outside Surface to Cover	Sq Ft	180	190	205	220	240	270	280	295	305	320	365	435
Diameter of Breeching, One Boiler	Inches	26	26	28	28	30	32	34	34	36	36	40	42
Diameter of Stack, One Boiler	Inches	24	24	26	26	28	30	32	32	34	34	38	40
Minimum Height of Stack, One Boiler	Feet	60	60	65	65	65	70	70	70	80	90	90	100
Diameter of Breeching, Two Boilers	Inches	38	38	40	40	44	46	50	50	52	52	56	56
Diameter of Stack, Two Boilers	Inches	34	34	36	36	40	42	46	46	48	48	54	54
Minimum Height of Stack, Two Boilers	Feet	70	70	75	75	75	80	80	80	90	100	100	110
A—Thickness of Foundation Walls	Inches	9	9	9	9	13	13	13	13	13	13	13	13
B—Length of Boiler	Ft In.	11-8	12-6½	11-8½	12-5½	13-0	14-9	13-11	14-9	14-4	14-11	16-7	19-9
C—Header to Bridgewall	Inches	12½	14	14	15	15	16	16	17	17	18	18	19
D—Length of Ash-pit	Inches	56	62	62	68	63	69	69	75	75	25	81	87
E—Length of Grate	Inches	55	61	61	67	61	67	67	73	73	73	79	85
F—Height of Ash-pit	Inches	14	14	14	14	17	17	17	17	17	17	17	17
G—Bridgewall to Rear Wall	Inches	12	12	12	12	13	13	13	13	13	19	19	19
H—Height of Boiler	Inches	92½	92½	101	101	106	106	112½	112½	118	118	119½	119½
J—Width of Ash-pit	Inches	43	43	49	49	53	53	59	59	65	65	71	71
K—Rear Wall to Pier	Inches	32	36	28	31	33	49	36	41	34	34	48	81
L—Length of Foundation	Inches	90	96	96	102	107	113	113	119	119	125	131	137
M—Height of Pier	Inches	10½	10½	13½	12	12	12	11½	13½	11	11	12½	12½
N—Height of Breeching Connection	Inches	82	82	91	91	94	94	99	99	104	104	105½	105½
O—Location of Steam Supply	Inches	25	26	36	35	35½	33½	30	32	32	30½	32	42
P—Location of Safety Valve	Inches	55	59½	50	57	56½	65½	68	71	57½	66	69½	66
Q—Boiler Centers Ash-pit Front	Inches	48	48	54	54	60	60	66	66	72	72	78	78
R—Height of Waterline	Inches	78	78	87	87	91	91	96	96	101	101	102½	102½
S—Width of Smoke Neck	Inches	14	14	14	14	15	15	17	17	19	19	21	21
T—Length of Smoke Neck	Inches	38	38	42	42	50	50	54	54	54	54	60	60
U—Height of Steam Supply	Inches	95	95	103	103	108	108	115	115	120	120	122	122
V—Height of Return	Inches	20	20	20	20	23	23	23	23	23	23	23	23
W—Boiler to Center of Breeching	Inches	10	10	10	10	10½	10½	11½	11½	12½	12½	13½	13½
Y—Height of Water Column	Inches	76	76	85	85	88	88	93	93	98	98	99½	99½
Z—Thickness of Bridgewall	Inches	13	13	13	13	18	18	18	18	18	18	18	18
*Number of Common Brick		625	650	1050	1075	1250	1300	1325	1375	1400	1475	1500	1575
Number of Fire Brick		155	155	185	185	190	190	220	220	230	230	290	290

*Foundation not included Capacity for Oil, Gas or Stoker—Steam, 10060 to 44670 sq. ft.; Water, 60% Greater than Steam.

KEWANEE WELD+RIVET FIREBOX BOILER—For Oil, Gas or Stoker



Kewanee Weld+Rivet Up-Draft Firebox Boilers in "5000" Series include 11 sizes for Oil, Gas or Stoker.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room. The steel base is shipped assembled. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

"5000" Series conforms to these Codes: A.S.M.E. for construction 15 lbs. steam; S. H. B. I. for ratings.

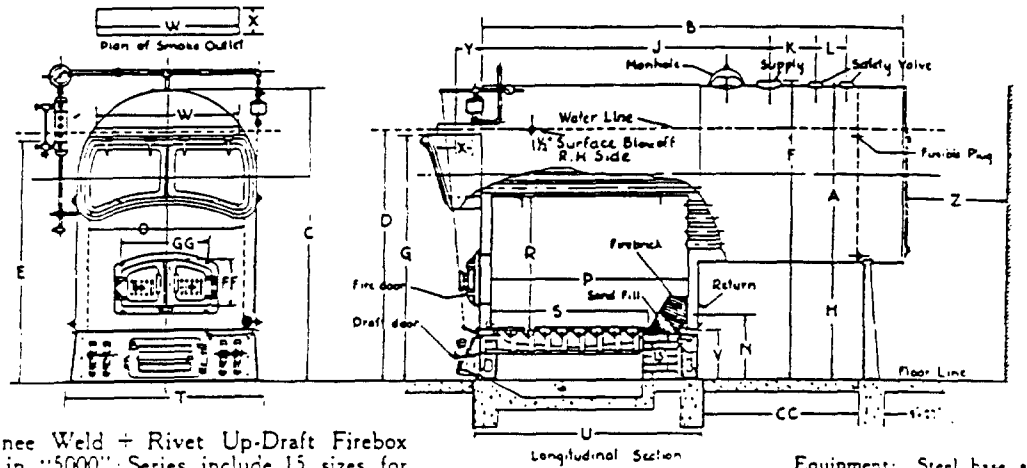
Equipment:—Steel base assembled, backstand, fire and flue doors with frames; cleanout plugs, manhole, flue cleaner. But steel plate with dampers for mounting burners, also fire-brick lining and hearth angles not furnished by K. B. Corp.

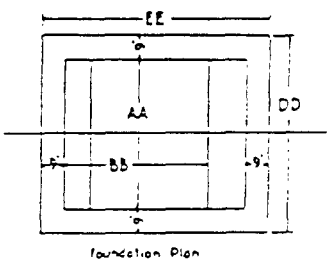
Trimmings for Steam only:—Steam gauge, water column, and safety valve.

Footings may be required under base corner posts depending on soil conditions.

Boiler Number	5133	5134	5136	5138	5139	5140	5141	5142	5143	5144	5145
Heating—Steam sq. ft.	9110	10740	12530	15080	17580	21180	24450	29310	33490	39540	45000
—Water sq. ft.	14580	17180	20050	24130	28130	33890	39120	46900	53580	63260	72000
Heating Surface sq. ft.	536	632	737	887	1034	1246	1438	1724	1970	2326	2647
Steam Space Volume cu. ft.	78	87	96	114	125	151	175	209	239	282	321
Boiler Diameter in.	54	54	54	60	60	66	66	72	72	78	78
Boiler Length ft. in.	9-9	11-2	12-9	12-3	13-11	14-1	15-10	15-5	17-3	17-9	19-8
Boiler Height Over-all in.	92½	92½	92½	100½	100½	105	105	111	111	117	117
Water-line in.	78	78	78	86½	86½	88½	88½	95	95	98	98
Breeching Diameter in.	25	26	28	29	31	32	34	36	39	41	43
Stack Diameter in.	23	24	26	27	29	30	32	34	36	38	40
Stack Height ft.	55	65	75	75	85	80	90	90	100	100	115
Breeching Diameter, Two Boilers in.	32	34	36	39	41	43	45	48	51	54	56
Stack Diameter, Two Boilers in.	30	32	34	36	38	40	42	45	47	50	52
Stack Height, Two Boilers ft.	65	75	85	85	95	90	100	100	110	110	125
Steam Supply Size in.	8	8	8	8	8	8	8	10	10	10	10
Return Size in.	5	5	6	6	6	6	6	6	6	6	6
Safety Valve Size in.	3	3	3½	3½	4	2-2½	2-2½	2-3	2-3	2-3	2-3½
Shipping Weight lbs	8200	9100	10000	11500	12600	15500	17000	19400	21300	24200	26500
E—Water Column Height in.	76	76	76	83½	83½	85½	85½	92	92	95	95
F—Steam Supply Height in.	94	94	94	102	102	106	106	112	112	118	118
G—Breeching Connection Height in.	77	77	77	83½	83½	85½	85½	92½	92½	96	96
H—Rear Stand Height in.	38	38	38	40	40	38	38	38	38	38	38
J—Steam Supply Location ft. in.	1-6	8-0	9-3	8-9	10-0	10-0	11-0	10-8	12-0	12-0	13-0
K—Safety Valve Location in.	18	14	14	14	14	14	16	16	16	16	24
L—Return Height in.	19	19	19	22	22	22	22	22	22	22	22
M—Firebox Width in.	48½	48½	48½	54	54	60	60	66	66	72	72
N—Firebox Length in.	56	62	68	68	74	74	80	80	86	86	92
P—Firebox Height in.	46	46	46	46	46	48	48	51	51	54	54
R—Base Width in.	58½	58½	58½	65	65	71	71	77	77	83	83
S—Base Length in.	66	72	78	79	85	85	91	91	97	97	103
T—Base Height in.	14	14	14	17	17	17	17	17	17	17	17
U—Breeching Connection Length in.	40	40	40	44	44	51	51	54	54	60	60
V—Breeching Connection Width in.	15½	15½	15½	17	17	18	18	24	24	26	26
W—Breeching Connection Location in.	9¼	9¼	9¼	10½	10½	11	11	14	14	15	15
X—Rear Door Clearance in.	30	30	30	33	33	36	36	39	39	42	42
Y—Foundation Length in.	67	73	79	80	86	86	92	92	98	98	104
Z—Foundation Width in.	65½	65½	65½	70½	70½	76½	76½	82	82	88	88
AA—Furnace Length in.	47	53	59	59	65	65	71	71	77	77	83
BB—Furnace Width in.	36	36	36	42	42	48	48	54	54	60	60
CC—Burners Location in.	8½	8½	8½	9½	9½	11	11	12½	12½	14	14
DD—Bolt Centers in Plate in.	49½	49½	49½	55½	55½	61½	61½	67½	67½	73½	73½
EE—Bolt Centers in Plate in.	4⅛	4⅛	4⅛	5⅛	5⅛	5⅛	5⅛	5⅛	5⅛	5⅛	5⅛
—Ports or Openings Total Area sq. in.	136	160	188	230	264	317	366	440	500	590	670
—Pit Depth in.	10	10	10	10	10	11	18	22	27½	31½	38½
—Rear Stand Location ft. in.	3-6	4-6	5-6	4-9	5-11	5-10	7-2	6-7	8-0	8-4	9-10
—Hearth to Bottom of Boiler in.	14	14	14	17	17	17	24	27	32½	36½	43
Number of Fire Brick	460	500	520	620	650	700	860	970	1150	1300	1550
Outside Surface to Cover sq. ft.	157	178	201	211	238	258	289	306	341	376	418

KEWANEE WELD+RIVET FIREBOX BOILER "5000" Series Up-Draft For Coal





Kewanee Weld + Rivet Up-Draft Firebox Boilers in "5000" Series include 15 sizes for Burning Coal.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room. The steel base is shipped assembled, with grates. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

"5000" Series conforms to boiler Codes of American Society of Mechanical Engineers and Steel Heating Boiler Institute: A.S.M.E.—for construction 15 lbs. steam; and for rating with the S.H.B.I. Simplified Practice Recommendation.

Equipment: Steel base assembled, heavy rocking or dumping grates, backstand except 5076-7; fire and flue doors with frames; cleanout plugs, and manhole on 5082 and larger.

Firing tools: Hoe, poker, slice bar, flue cleaner and handle.

Trimmings for Steam only: Steam gauge, water column, Arco regulator all complete and safety valve.

Footings may be required under base corner posts depending on soil conditions.

Steam Supply and Safety Valve located nearer front on 5076-7-8-9-80-1-2-3-4 and 6.

Specifications and Setting Measurements

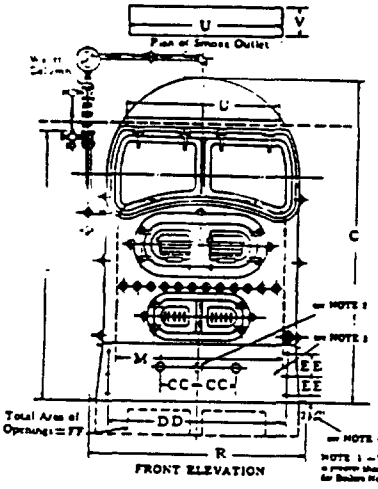
Boiler Number		5076	5077	5078	5079	5080	5081	5082	5083	5084	5085	5086	5087	5088	5089	5090
Rating—Steam Radiation	Sq Ft	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation	Sq Ft	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu per Hour	1000s	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.)	Sq Ft	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.)	Sq Ft	11 4	12 2	13 4	14 5	16 4	18 1	20 5	22 5	25 6	28 4	30 9	33 2	37 4	41 2	44 7
Breeching Diameter, One Boiler	In	19	20	21	22	23	24	26	28	30	31	33	33	39	41	43
Stack Diameter, One Boiler	In	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height, One Boiler	Ft	50	55	60	60	60	65	65	70	70	80	80	85	90	100	110
Breeching Diameter, Two Boilers	In	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers	In	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers	Ft	60	65	70	70	70	75	75	80	80	90	90	95	100	110	120
Steam Supply Size	In	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size	In	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size	In	2	2	2	2½	2½	2½	3	3	2-2½	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight	Lbs	5100	5600	6100	6600	7500	8400	9600	10500	12600	14400	16100	17900	21200	24400	27200
A—Boiler Diameter	In	42	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length	Ft-In	7-3	8-0	8-11	9-10	9-9	11-1½	11-1	12-9	13-2½	15-3	14-5½	16-0½	16-8½	17-5½	19-8½
C—Boiler Height Overall	In	81	81	81	81	86½	86½	92½	92½	100½	105	105	105	112	117	117
D—Water Line	In	70	70	70	70	73½	73½	76	78	84	84	86	86	94½	96	96
E—Water Column Height	In	68	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height	In	81½	81½	81½	81½	88	88	94	94	102	102	106	106	113	116	116
G—Breeching Connection Height	In	70	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height	In	38	38	38	38	38	38	38	38	40	40	38	38	39	39	38
J—Steam Supply Location	Ft-In	1-4	1-4	1-5	1-5	1-5	1-5	2-0	2-6	2-6	10-9	2-9	11-0	12-0	12-3	13-0
K—Safety Valve Location	In	17	17	18	18	18	18	18	18	18	18	18	18	18	18	24
L—2nd Safety Valve Location	In									12	12	12	12	12	15	15
N—Return Height	In	18	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width	In	36½	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length	In	50	50	56	62	56	62	72	82	82	86	86	96	102	102	108
R—Firebox Height	In	42	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
S—Grate Length	In	50	50	56	62	56	62	61	67	73	79	79	85	85	85	91
T—Base Width	In	47½	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length	In	60	60	66	72	66	72	82	92	93	97	97	101½	113½	113	119½
V—Base Height	In	14	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length	In	32	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width	In	9	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location	In	6½	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance	In	42	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Ash Pit Width	In	36	36	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70
BB—Ash Pit Length	In	43	43	49	55	49	55	56	62	68	74	74	80	80	86	86
CC—Rear Stand Location	In			30	35	39	48	38	48	51	72	60	73	73	78	99
DD—Foundation Width	In	54	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
EE—Foundation Length	In	61	61	67	73	67	73	83	93	94	98	98	102½	114½	114½	120½
FF&CC—Fire Dr. Opng. for Coal Cl. & Gas	In	One 12x20				One 15x23		One 16x30				One 16x36			Two 15x23	
Fire Door Style		Single Frame & Door						Single Frame and Double Doors							R&L Single Fr. & Dr.	
Number of Common Brick								175	175	185	185	200	220	220	240	240
Number of Fire Brick								33	50	40	40	40	40	85	110	110
*Outside Surface to Cover	Sq Ft	100	110	120	130	140	160	177	203	227	260	265	295	330	370	416

*Front smokebox and front head below smokebox NOT included.

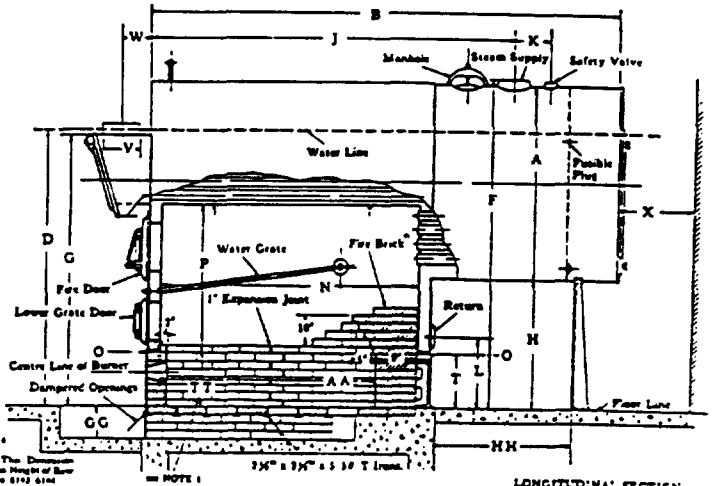
Kewanee Catalog No. 61-A.

24288

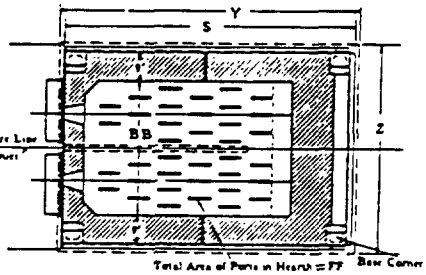
KEWANEE WELD+RIVET SMOKELESS BOILER — For Burning Oil



FRONT ELEVATION



LONGITUDINAL SECTION



FOUNDATION AND HEARTH PLAN AT O—O

Footings may be required under base corner posts depending on soil conditions.

Kewanee Weld+Rivet Smokeless Fire-box Boilers in "6000" Series include 14 sizes for Oil or Gas as listed.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room; with the addition of the water grate and header for extremely efficient operation. The steel base is shipped assembled. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

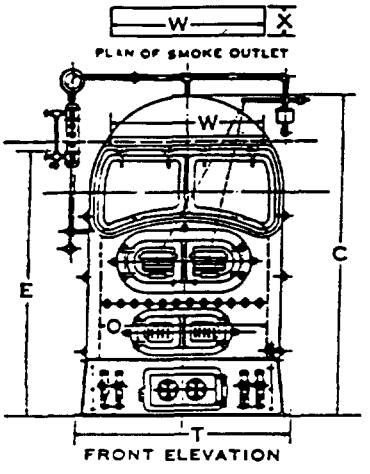
"6000" Series conforms to these Codes: A. S. M. E. for construction 15 lbs. steam; S. H. B. I. for ratings.

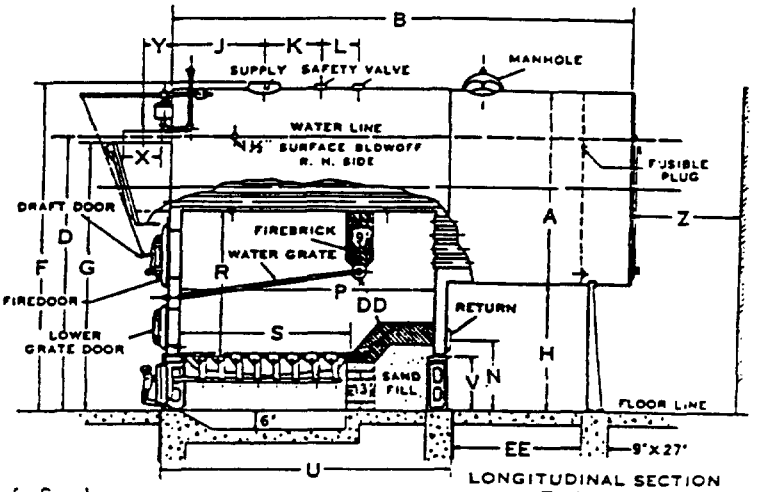
Equipment:—Steel base assembled, backstand; draft, fire, grate and flue doors with frames; cleanout plugs, manhole, flue and tube cleaner, socket wrench. But steel plate with dampers for mounting burners, also fire-brick lining and hearth angles not furnished by K. B. Corp.

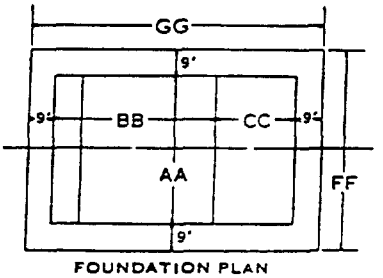
Trimmings for Steam only: —Steam gauge, water column, and safety valve

Boiler Number		6126	6127	6128	6130	6132	6134	6136	6138	6139	6140	6141	6142	6143	6144
Rating—Steam	sq. ft.	4860	5470	6080	7290	8500	10320	12150	15180	18220	21250	24290	30360	36430	42500
—Water	sq. ft.	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Heating Surface	sq. ft.	266	322	358	429	500	608	715	893	1072	1250	1429	1766	2143	2500
Furnace Volume	cu. ft.	57	63	66	84	88	104	113	142	151	181	187	224	261	304
A—Boiler Diameter	in.	42	42	42	48	48	54	54	60	60	66	66	72	72	78
B—Boiler Length	ft. in.	7-10	8-9	9-6	9-9	11-0	10-9	12-3	12-3	14-3	14-3	15-9	16-1	18-6	18-11
C—Boiler Height Over-all	in.	81	81	81	86½	86½	92½	92½	100½	100½	105	105	111	111	117
D—Water-line	in.	71	71	71	74½	74½	78	78	86½	86½	88½	88½	95	95	98
Breeching Diameter	in.	20	22	22	24	24	26	28	30	32	32	34	38	42	44
Stack Diameter	in.	20	20	20	22	22	24	26	28	30	30	32	36	38	40
Stack Height	ft	45	45	50	50	60	65	75	75	85	80	90	90	100	100
Breeching Diameter, Two Boilers	in.	28	28	28	32	32	34	36	40	42	44	46	50	54	56
Stack Diameter, Two Boilers	in.	26	26	26	30	30	32	34	36	38	40	42	46	50	52
Stack Height, Two Boilers	ft.	55	55	60	60	70	75	85	85	95	90	100	100	110	110
Steam Supply Size	in	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size	in.	4	4	4	6	6	6	6	6	6	6	6	6	6	6
Safety Valve Size	in.	2	2	2½	2½	2½	2½	3	3	3½	2-2	2-2½	2-2½	2-2½	2-3
Shipping Weight	lbs	5100	5600	6100	7000	7800	8900	10100	11900	13500	15100	16700	19800	22700	25300
E—Water Column Height	in.	69	69	69	72½	72½	76	76	83½	83½	85½	85½	92	92	95
F—Steam Supply Height	in.	81½	81½	81½	88	88	94	94	102	102	106	106	112	112	118
G—Breeching Connection Height	in.	70	70	70	74	74	77	77	83½	83½	85½	85½	92½	92½	96
H—Rear Stand Height	in.	38	38	38	38	38	38	38	40	40	38	38	38	38	38
J—Steam Supply Location	ft. in.	1-5	1-5	1-5	1-4	1-5	1-5	1-5	1-6	10-6	10-8	11-6	11-8	13-0	13-6
K—Safety Valve Location	in.	18	18	18	17	18	18	17	18	16	12	14	16	16	16
L—Return Height	in.	18	18	18	19	19	19	19	22	22	22	22	22	22	22
M—Firebox Width	in.	36½	36½	36½	42½	42½	48½	48½	54	54	60	60	66	66	72
N—Firebox Length	in.	58	64	66	69	72	72	78	82	87	90	93	96	102	102
P—Firebox Height	in.	42	42	42	44	44	46	46	46	46	48	48	51	51	54
R—Base Width	in.	46½	46½	46½	52½	52½	58½	58½	65	65	71	71	77	77	83
S—Base Length	in.	67	73	75	79	82	82	88	93	98	101	104	107	113	113
T—Base Height	in.	14	14	14	14	14	14	14	17	17	17	17	17	17	17
U—Breeching Connection Length	in.	32	32	32	34	34	40	40	44	44	51	51	54	54	60
V—Breeching Connection Width	in.	11½	11½	11½	13½	13½	15½	15½	17	17	18	18	24	24	26
W—Breeching Connection Location	in.	7½	7½	7½	8½	8½	9½	9½	10½	10½	11	11	14	14	15
X—Rear Door Clearance	in.	24	24	24	27	27	30	30	33	33	36	36	39	39	42
Y—Foundation Length	in.	68	74	76	80	83	83	89	94	99	102	105	108	114	114
Z—Foundation Width	in.	52	52	52	60	60	65½	65½	70½	70½	76½	76½	82	82	88
AA—Furnace Length	in.	49	55	57	60	63	63	69	73	78	81	84	87	93	93
BB—Furnace Width	in.	24	24	24	30	30	36	36	42	42	48	48	54	54	60
CC—Burners Location	in.	—	—	—	7	7	8½	8½	9½	9½	11	11	12½	12½	14
DD—Bolt Centers in Plate	in.	37½	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	67½	73½
EE—Bolt Centers in Plate	in.	4½	4½	4½	4½	4½	4½	4½	5½	5½	5½	5½	5½	5½	5½
FF—Ports or Openings Total Area	sq in.	73	83	92	110	127	155	182	230	273	320	365	455	545	640
GG—Pit Depth	in.	10	10	10	10	10	10	10	10	10	11	11	12	17½	19½
HH—Rear Stand Location	ft. in.	1-6	1-10	2-5	2-3	3-3	3-0	4-0	3-6	5-1	4-8	5-11	5-11	7-10	8-3
TT—Hearth to Bottom of Boiler	in.	14	14	14	14	14	14	14	17	17	17	17	17	22½	24½
Number of Fire Brick		360	385	400	445	460	495	525	650	675	730	750	805	995	1105
Outside Surface to Cover	sq. ft.	110	118	126	144	160	173	195	213	244	262	289	319	365	401

KEWANEE WELD+RIVET SMOKELESS BOILER "6000" Series Down-Draft For Coal







Kewanee Weld + Rivet Down-Draft Smokeless Boilers in "6000" Series include 14 sizes for Burning Coal as listed.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room; with the addition of the down-draft water grate for extreme smokeless operation. The steel base is shipped assembled, with lower grates. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

"6000" Series conforms to the A.S.M.E. Boiler Code or construction 15 lbs. and for rating with the S.H.B.I. simplified practice recommendation

Steam Supply and Safety Valve located rear of Manhole on 6085-87-8-9 and 90.

Footings may be required under base corner posts depending on soil conditions.

Equipment: Steel base assembled with cast iron ashpit front and four cast iron corner posts, heavy rocking grates; backstand except 6077-80; draft, fire grate and flue doors with frames; cleanout plugs and manhole on 6082 and larger, special fire-brick tile, first course to fit header.

Firing tools: Hoe, poker, slice bar, flue and tube cleaners with handles, socket wrench.

Trimmings for Steam only: Steam gauge, water column, Arco regulator all complete, and safety valve.

Specifications and Setting Measurements

Boiler Number	6077	6078	6079	6080	6081	6082	6083	6084	6085	6086	6087	6088	6089	6090
Rating—Steam Radiation Sq. Ft.	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation Sq. Ft.	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour 1000's	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.) Sq. Ft.	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter In.	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft	55	60	60	60	65	65	70	75	85	85	95	95	105	115
Breeching Diameter, Two Boilers In.	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft	65	70	70	70	75	75	80	85	95	95	105	105	115	125
Steam Supply Size In	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight Lbs.	5800	6300	6800	7700	8600	9900	11200	13100	14900	16600	18300	21500	24500	27300
A—Boiler Diameter In.	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length Ft. In.	8-2	8-8	9-6	9-7	11-0	10-8½	12-4½	12-9½	14-9½	14-0½	15-7½	16-4½	17-1	19-4
C—Boiler Height Overall In	81	81	81	86½	86½	92½	92½	100½	100½	105	105	112	117	117
D—Water Line In.	70	70	70	73½	73½	78	78	84	84	86	86	94½	96	96
E—Water Column Height In.	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height In	81½	81½	81½	88	88	94	94	102	102	106	106	113	118	118
G—Breeching Connection Height In.	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height In.	38	38	38	38	38	38	38	40	40	38	38	39	38	38
J—Steam Supply Location Ft. In	1-5	1-5	1-5	1-5	1-5	2-0	2-6	2-6	10-6	2-9	11-0	11-9	12-3	13-0
K—Safety Valve Location In.	18	18	18	18	18	18	18	18	16	18	18	18	18	24
L—Safety Valve Location In.								12	12	12	12	12	14	15
N—Return Height In	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width In.	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length In.	62	62	66	64	72	72	82	82	86	86	90	102	103	108
R—Firebox Height In	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
S—Grate Length In.	33	43	43	43	49	49	55	55	61	61	61	67	67	73
T—Base Width In	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length In	71½	71½	74½	73½	83	83	92	93	97	97	101½	113½	113½	119½
V—Base Height In	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length In.	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width In	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location In	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance In	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Ash Pit Width In	36	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70
BB—Ash Pit Length In	31	37	37	37	43	43	49	50	56	56	56	62	62	68
CC—Bridgewall to Rear Wall In	23½	17½	20½	19½	22	22	26	26	24	24	28½	34½	34½	34½
DD—Header to Bridgewall In	10	11	11½	11	12	12	13	14	15	15	16	16	17	18
EE—Rear Stand Location In					39	36	46	48	66	57	72	66	75	96
FF—Foundation Width In	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
GG—Foundation Length In	72½	72½	75½	74½	83	83	93	94	98	98	102½	114½	114½	120½
Number of Common Brick	135	135	135	155	155	175	175	185	185	200	200	220	240	240
Number of Fire Brick	100	100	100	120	120	150	170	175	175	190	200	280	305	305
*Outside Surface to Cover Sq. Ft	110	115	125	140	160	170	195	220	250	260	285	330	360	410

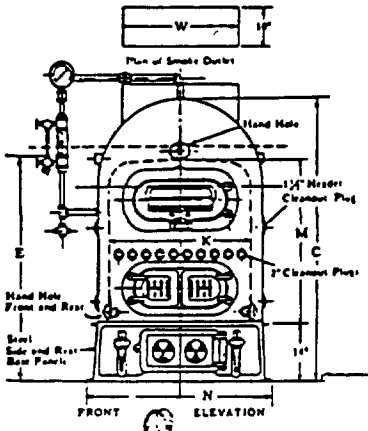
*Front smokebox and front head below smokebox NOT included

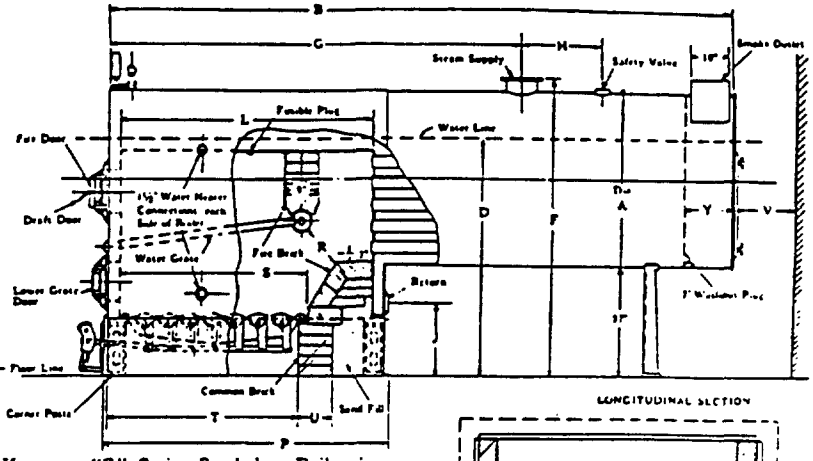
Kewanee Catalog No. 60 A

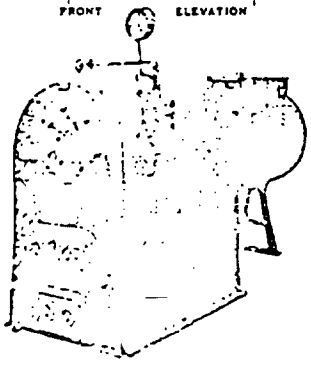
24290

1934-1960

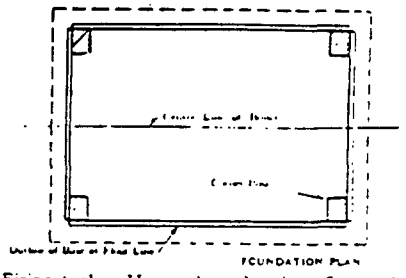
KEWANEE "G" SERIES SMOKELESS BOILER—For Burning Coal







Kewanee "G" Series Boiler



The Kewanee "G" Series Smokeless Boiler is a single-pass portable firebox boiler with down-draft grates. All seams electrically welded. The steel base is shipped assembled, with lower grates. For heating average to medium size buildings where smoke ordinances are stringent, this "G" Series effectively fulfills welded smokeless boiler specifications.

"G" Series conforms to boiler Codes of American Society of Mechanical Engineers and Steel Boiler Institute: A.S.M.E. for construction 15 lbs steam; and for rating with the S.B.I. Simplified Practice Recommendation.

Equipment:—Steel base assembled, with heavy rocking grates, backstand; draft, fire, grate and flue doors with frames; handholes and cleanout plugs; special fire brick tile first course to fit header.

Firing tools:—Hoe, poker, slice bar; flue and tube cleaners, socket wrench

Trimmings for Steam only:—Steam gauge, water column, safety valve, all complete

Damper regulator if required.

Boiler Number	G-18	G-22	G-26	G-30	G-35	G-40	G-45	G-50	G-60
SBI Rating—Steam Radiation sq. ft	1800	2200	2600	3000	3500	4000	4500	5000	6000
—Water Radiation sq. ft.	2880	3520	4160	4800	5600	6400	7200	8000	9600
—Btu per Hour 1000's	432	528	624	720	840	960	1080	1200	1440
SBI Net Rating—Steam sq. ft.	1500	1830	2170	2500	2920	3330	3750	4170	5000
—Water sq. ft	2400	2930	3470	4000	4670	5330	6000	6670	8000
—Btu per Hour 1000's	360	439	521	600	700	800	900	1000	1200
Heating Surface, SBI min. sq. ft.	129	158	186	215	250	286	322	358	429
Grate Area, SBI min sq. ft.	7.9	8.9	9.7	10.5	11.4	12.2	13.4	14.5	16.4
Safety Valve Capacity Lb steam per hour	645	790	930	1075	1250	1430	1610	1790	2145
A—Boiler Diameter in.	36	36	36	36	36	42	42	42	42
B—Boiler Length ft. in.	8-0	9-0	10-4	11-4	12-10	11-4	12-4	13-4	15-5
C—Boiler Head Height Over-all in.	63	63	63	63	63	69	69	69	69
D—Water-line in	54	54	54	54	54	58	58	58	58
Breeching Diameter in.	16	17	18	18	19	20	21	22	23
Stack Diameter in.	14	15	16	16	17	18	19	20	21
Stack Height ft.	40	40	45	45	45	45	45	45	50
Breeching Diameter, Two Boilers in.	22	23	24	24	25	26	27	28	30
Stack Diameter, Two Boilers in.	20	21	22	22	23	24	25	26	28
Stack Height, Two Boilers ft.	45	45	50	50	50	50	50	50	55
Steam Supply Size in.	6	6	6	6	6	6	6	6	8
Return Size in.	3	3	3	4	4	4	4	4	4
Shipping Weight lbs.	3500	3900	4300	4700	5100	5600	6100	6600	7500
E—Water Column Height in.	52	52	52	52	52	56	56	56	56
F—Steam Supply Height, Flanged*** in.	67½	67½	67½	67½	67½	73½	73½	73½	74
G—Steam Supply Location ft. in.	6-0	6-9	7-6	7-11	8-7	8-1	8-8	8-11	9-6
H—Safety Valve Location in.	20*	12	12	16	18	12	16	21	21
J—Return Height in.	18	18	18	18	18	18	18	18	19
K—Firebox Width in.	31	31	31	31	31	37	37	37	37
L—Firebox Length in	52	52	58	58	64	61	64	66	72
M—Firebox Height in.	37	37	37	37	37	41	41	41	41
N—Base Width in.	41	41	41	41	41	47	47	47	47
P—Base Length in.	61	61	67	67	73	70	73	75	81
R—Header to Bridgewall in	9	9	10	10	11	9	10	11	11
S—Grate Length in	31	37	37	43	43	37	43	49	55
T—Ash Pit Length in	32	38	38	44	44	38	44	50	56
U—Bridgewall Thickness in	9	9	9	9	9	9	9	9	9
V—Rear Double Door Clearance in	21	21	21	21	21	24	24	24	24
—Space to Draw Tubes ft. in	1-9	2-6	3-3	4-6	5-6	4-3	5-0	5-9	7-6
W—Breeching Connection Length in	24	24	24	24	24	30	30	30	30
Y—Shell Extension Depth in.	12	12	12	12	12	12	12	12	12
Number of Common Brick	85	75	85	75	75	85	85	85	85
Number of Fire Brick	90	80	90	80	80	100	100	100	100
**Outside Surface to Cover sq. ft	86	91	102	116	126	125	135	150	171

*On G-18 only Safety Valve Location H is 20" to left of steam supply, instead of to right as shown for all other sizes

**Front head NOT included

***Threaded outlet height 3" less

KEWANEE "GD" SERIES TWO-PASS PORTABLE SMOKELESS FIREBOX BOILER

Boiler Number	GD-40	GD-45	GD-50	GD-55	GD-60	GD-65	GD-70	GD-78	GD-85	GD-93	GD-100	GD-112	GD-125	GD-150	GD-175	GD-200	GD 250	GD-300	GD-350	GD-400
Rating—Steam sq. ft.	4000	4500	5000	5500	6000	6500	7000	7800	8500	9300	10000	11200	12500	15000	17500	20000	25000	30000	35000	40000
—Water sq. ft.	6400	7200	8000	8800	9600	10400	11200	12480	13600	14880	16000	17920	20000	24000	28000	32000	40000	48000	56000	64000
Heating Surface sq. ft.	286	322	357	393	429	465	500	557	607	664	714	800	893	1071	1250	1429	1786	2143	2500	2857
Grate Area sq. ft.	12.2	13.4	14.5	15.5	16.5	17.3	18.2	19.4	20.5	21.6	22.6	24.1	25.8	28.4	31.0	33.3	37.5	41.4	44.7	47.9
A—Boiler Diameter in.	42	42	42	42	48	48	48	54	54	54	54	60	60	60	66	66	72	72	78	78
B—Boiler Length ft. in.	7-10	8-9	9-6	10-4	9-9	10-4	11-0	10-0	10-9	11-8	12-3	11-3	12-3	14-3	14-3	15-9	16-1	18-6	18-11	21-1
C—Boiler Height Overall in.	81	81	81	81	86⅛	86⅛	86⅛	92⅛	92⅛	92⅛	92⅛	100⅛	100⅛	100⅛	105	105	111	111	117	117
D—Water Line in.	71	71	71	71	74⅛	74⅛	74⅛	78	78	78	78	86⅛	86⅛	86⅛	86⅛	88⅛	95	95	98	98
Breeching Diameter in.	20	22	22	24	24	24	24	26	26	28	28	28	30	32	32	34	38	42	44	46
Stack Diameter in.	20	20	20	22	22	22	22	24	24	26	26	26	28	30	30	32	38	38	40	42
Stack Height ft.	45	45	50	55	50	55	60	60	65	70	75	70	75	85	80	90	90	100	100	115
Breeching Diameter, Two Boilers in	28	28	28	30	32	32	32	32	34	36	36	36	40	42	44	46	50	54	56	60
Stack Diameter, Two Boilers in.	26	26	26	28	30	30	30	30	32	32	34	34	38	38	40	42	46	50	52	56
Stack Height, Two Boilers ft.	55	55	60	65	60	65	70	70	75	80	85	80	85	95	90	100	100	110	110	125
Steam Supply Size in.	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	10	10	10	10
Return Size in.	4	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Safety Valve Size in.	2	2	2	2	2½	2½	2½	2½	2½	3	3	3	3	3½	2-2	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight lbs.	6000	6500	7000	7400	7900	8400	9100	10400	10700	11400	12300	13000	13800	15800	17800	20000	23000	28000	32000	34000
E—Water Column Height in.	69	69	69	69	72⅛	72⅛	72⅛	76	76	76	76	83⅛	83⅛	83⅛	85⅛	85⅛	92	92	95	95
F—Steam Supply Height in.	81⅛	81⅛	81⅛	81⅛	86	86	86	94	94	94	94	102	102	102	106	106	112	112	118	118
G—Breeching Connection Height in.	70	70	70	70	74	74	74	77	77	77	77	83⅛	83⅛	83⅛	85⅛	85⅛	92⅛	92⅛	96	96
H—Rear Stand Height in.	38	38	38	38	38	38	38	38	38	38	38	40	40	40	38	38	38	38	38	38
J—Steam Supply Location ft. in.	1-5	1-5	1-5	1-5	1-4	1-4	1-5	1-4	1-5	1-5	1-5	1-5	1-6	10-6	10-6	11-6	11-6	13-0	13-6	15-0
K—Safety Valve Location in.	18	18	18	18	17	17	18	17	18	17	17	17	18	16	12	14	16	16	18	24
L—Return Height in.	18	18	18	18	19	19	19	19	19	19	19	22	22	22	22	22	22	22	22	22
M—Firebox Width in.	36⅛	36⅛	36⅛	36⅛	42⅛	42⅛	42⅛	48⅛	48⅛	48⅛	48⅛	54	54	54	60	60	66	66	72	72
N—Firebox Length in.	58	64	66	72	69	69	72	69	72	78	78	78	82	87	90	93	96	102	102	108
P—Firebox Height in.	42	42	42	42	44	44	44	46	46	46	46	46	46	48	48	48	51	51	54	54
Q—Grate Length in.	37	43	43	49	43	49	49	49	49	49	55	49	55	61	61	67	67	73	73	79
R—Base Width in.	46⅛	46⅛	46⅛	46⅛	52⅛	52⅛	52⅛	58⅛	58⅛	58⅛	58⅛	65	65	65	71	71	77	77	83	83
S—Base Length in.	67	73	75	81	79	79	82	79	82	88	88	89	93	98	101	104	107	113	113	119
T—Base Height in.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	17	17	17	17
U—Breeching Connection Length in.	32	32	32	32	34	34	34	40	40	40	40	44	44	44	51	51	54	54	60	60
V—Breeching Connection Width in.	11⅛	11⅛	11⅛	11⅛	13⅛	13⅛	13⅛	15⅛	15⅛	15⅛	15⅛	17	17	17	18	18	24	24	26	26
W—Breeching Connection Location in.	7¼	7¼	7¼	7¼	8¼	8¼	8¼	9¼	9¼	9¼	9¼	10⅛	10⅛	10⅛	11	11	14	14	15	15
X—Rear Door Clearance in.	24	24	24	24	27	27	27	30	30	30	30	33	33	33	36	36	39	39	42	42
Y—Ash Pit Width in.	36	36	36	36	42	42	42	47⅛	47⅛	47⅛	47⅛	52⅛	52⅛	52⅛	58⅛	58⅛	64	64	70	70
Z—Ash Pit Length in.	31	37	37	43	37	43	43	43	43	43	49	43¼	49⅛	55⅛	55⅛	61⅛	62	68	68	74
AA—Bridgewal Thickness in.	9	9	9	9	13	13	13	13	13	13	13	18	18	18	18	18	18	18	18	18
BB—Bridgewall to Rear Foundation Wall in.	19	19	21	21	25	19	22	19	22	28	22	28⅛	28⅛	25⅛	28⅛	25⅛	28	28	28	28
CC—Header to Bridgewall in.	9⅛	10	11	12	11	11⅛	12⅛	11⅛	12	13	13⅛	13	14	15	15	16	16	18	18	19
DD—Rear Stand Location ft. in.	1-6	1-10	2-5	2-10	2-3	2-10	3-3	2-6	3-0	3-5	4-0	2-10	3-6	5-1	4-8	5-11	5-11	7-10	8-3	9-11
Number of Common Brick	85	85	95	95	155	155	155	175	175	175	175	330	330	330	365	365	395	395	430	430
Number of Fire Brick	100	100	115	115	165	150	155	175	175	195	175	210	200	200	250	240	290	280	315	315
Outside Surface to Cover sq. ft	110	118	126	136	144	151	160	162	173	186	195	196	213	244	262	289	319	365	401	446

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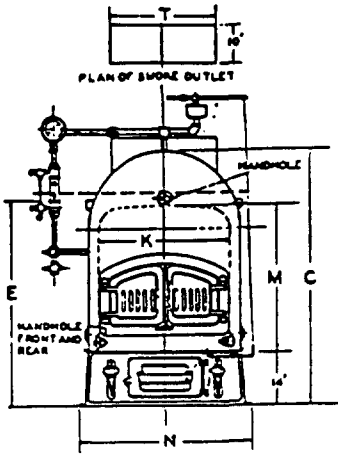
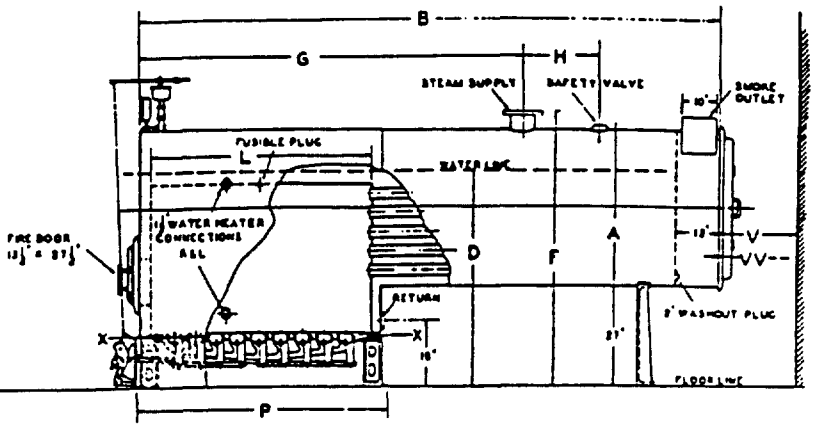
KEWANEE "P" SERIES FIREBOX BOILER —For Burning Coal



FRONT ELEVATION



LONGITUDINAL SECTION

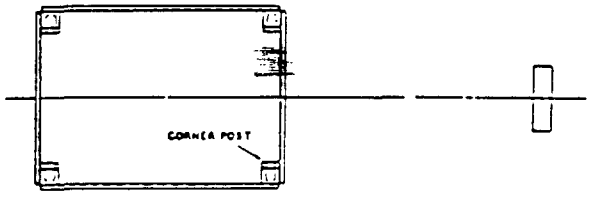
The Kewanee "P" Series Firebox Boiler is a single-pass portable up-draft boiler. All seams are welded. Steel base is shipped assembled with grates in place.

"P" Series conforms to A S M E Boiler Code for construction 15 lbs steam, 30 lbs water, and with S B I rating code.

EQUIPMENT:—Steel base assembled with cast iron ash pit front, and four cast iron corner posts, and heavy rocking or dumping grates; backstand; fire and flue doors with frames; handholes and cleanout plugs.

FIRING TOOLS:—Hoe, poker, slice bar, flue cleaner and handle.

FITTINGS for Steam Only:—Safety valve, steam gauge, syphon and cock, water column with gauge and cocks, damper regulator all complete.

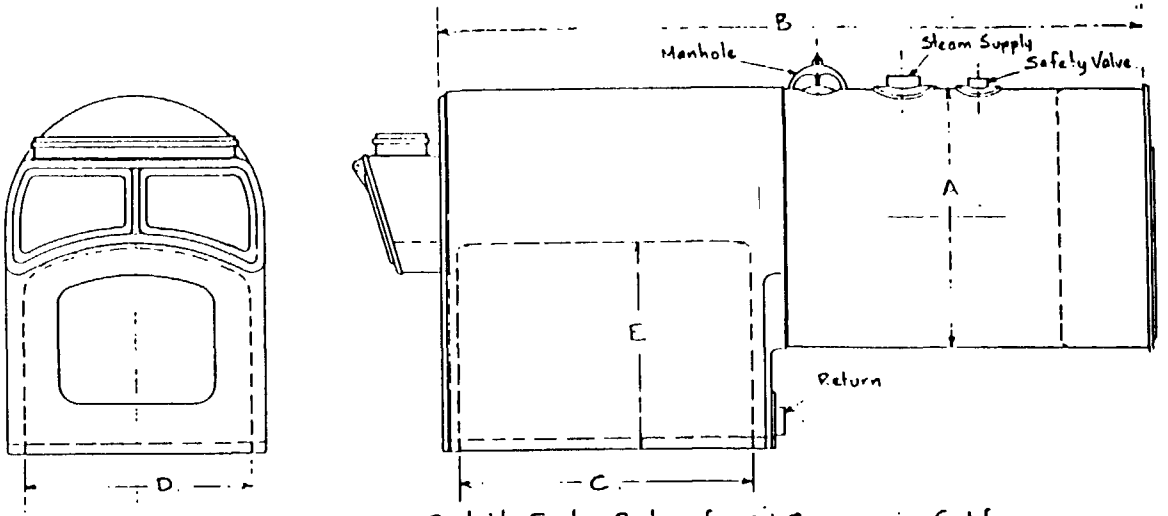


SECTION X-X

Boiler Number	P-18	P-22	P-26	P-30	P-35	P-40	P-45	P-50	P-60
SBI Rating—Steam Radiation . . . . . Sq Ft	1800	2200	2600	3000	3500	4000	4500	5000	6000
—Water Radiation . . . . . Sq Ft	2880	3520	4160	4800	5600	6400	7200	8000	9600
—Btu per Hour. . . . . 1000's	432	528	624	720	840	960	1080	1200	1440
SBI Net Rating—Steam . . . . . Sq Ft	1500	1830	2170	2500	2920	3330	3750	4170	5000
--Water . . . . . Sq Ft	2400	2930	3470	4000	4670	5330	6000	6670	8000
--Btu per Hour. . . . . 1000's	360	439	521	600	700	800	900	1000	1200
Heating Surface, SBI min. . . . . Sq Ft	129	156	186	215	250	286	322	356	429
Grate Area, SBI min. . . . . Sq Ft	7.9	8.9	9.7	10.5	11.4	12.2	13.4	14.5	16.4
Safety Valve Capacity . . Lb. Steam per Hour	645	790	930	1075	1250	1430	1610	1790	2145
A-Boiler Diameter . . . . . In	36	36	36	36	36	42	42	42	42
B-Boiler Length . . . . . Ft In	7-7	9-0	10-4	11-4	12-11	11-0	12-4	13-7	15-8
C-Boiler Head Height. . . . . In	63	63	63	63	63	69	69	69	69
D-Water Line. . . . . In	54	54	54	54	54	58	58	58	58
Breeching Diameter. . . . . In	16	17	18	18	19	20	21	22	23
Stack Diameter. . . . . In	14	16	16	16	17	18	19	20	21
Stack Height. . . . . Ft	35	35	35	40	40	40	40	45	45
Breeching Diameter, 2 Boilers . . . . . In	22	23	24	24	25	26	27	28	30
Stack Diameter, 2 Boilers . . . . . In	20	21	22	22	23	24	25	26	28
Stack Height, 2 Boilers . . . . . Ft	40	40	40	45	45	45	45	50	50
Steam Supply Size . . . . . In	6	6	6	6	6	6	6	6	8
Return Size . . . . . In	3	3	3	4	4	4	4	4	4
Shipping Weight . . . . . Lbs	3240	3550	3900	4160	4550	5020	5500	5980	6940
E-Water Column Height . . . . . In	52	52	52	52	52	56	56	56	56
F-Steam Supply Height, Flanged** . . . . In	67½	67½	67½	67½	67½	73½	73½	73½	74
G-Steam Supply Location . . . . . Ft In	5-2	6-10	7-0	7-6	8-0	7-6	8-0	9-0	10-0
H-Safety Valve Location . . . . . In	12	12	12	16	18	12	16	21	16
K-Firebox Width . . . . . In	31	31	31	31	31	37	37	37	37
L-Firebox Length. . . . . In	38	44	50	50	56	50	56	62	68
M-Firebox Height. . . . . In	37	37	37	37	37	41	41	41	41
N-Base Width. . . . . In	41	41	41	41	41	47	47	47	47
P-Base Length . . . . . In	47	53	59	59	65	59	65	71	77
T-Breeching Connection Length . . . . . In	24	24	24	24	24	30	30	30	30
V-Rear Single Door Clearance, min . . . . In	36	36	36	36	36	42	42	42	42
VV-Rear Space to Draw Tubes . . . . . Ft In	2-5	3-4	4-2	5-2	6-3	4-10	5-8	6-5	8-0
*Outside Surface to Cover . . . . . Sq Ft	80	93	106	118	132	130	144	158	182

*Front Head NOT included. ** Threaded outlet height 3" less.

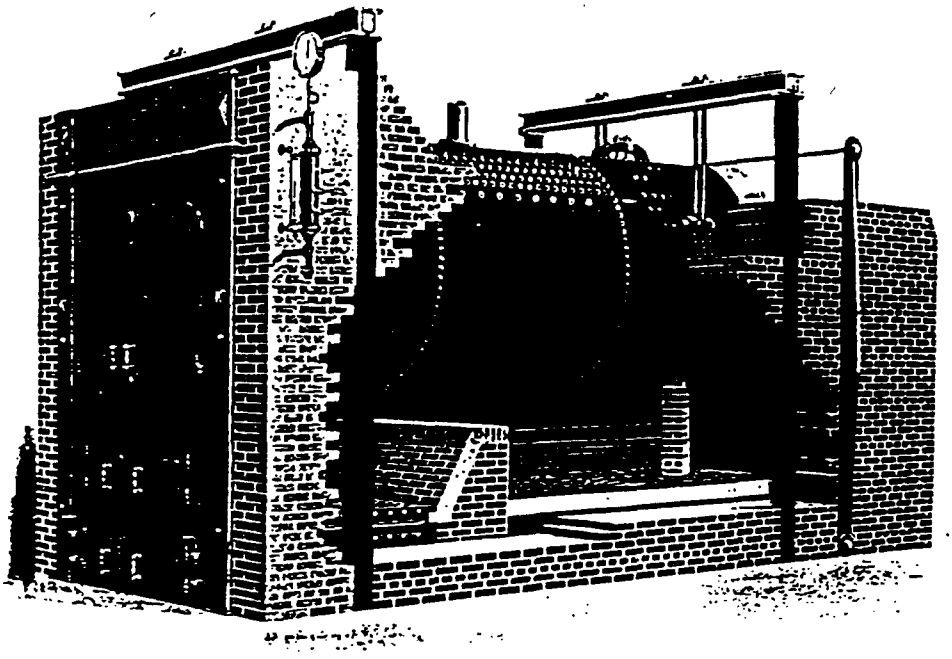
24293



4000 Series Portable Firebox Boilers for Oil Burning in California

Number of Boiler			4073	4083	4093	4103	4113	4123	4133	4143	4153	4163	4173	4183	4193	4203	4213	4223
Capacity Steam		Sq Ft.	4100	4700	5600	6300	7000	7800	10000	11500	13000	15000	18000	20000	22000	25000	30000	35000
Capacity Water		Sq Ft	6750	7750	9250	10400	11550	12900	16500	19000	21500	24800	29800	33000	36000	41000	48000	56000
Diameter of Boiler	A	in.	48	48	48	54	54	54	60	60	60	60	66	66	72	72	78	78
Length of Boiler	B	Ft-in	8-7	9-6	11-1	10-5	11-1	12-1	12-5	13-7	14-4	16-2	15-9	17-4	15-11	17-6	17-5	19-4
Heating Surface		Sq Ft	278	310	373	416	465	515	668	760	862	979	1171	1311	1389	1552	1824	2063
Grate Area		Sq Ft	9.6	11.1	12.6	12.9	14.7	16.5	20.7	22.7	22.8	27.2	30.5	32.8	36.1	38.8	39.5	42.5
Firedoor Length	C.	in	38	44	50	44	50	56	62	68	62	74	74	80	80	86	80	86
Firedoor Width	D.	in.	36	36	36	43	43	43	48	48	52	53	59	59	65	65	71¼	71¼
Firedoor Height	E.	in	41½	41½	41½	44	44	44	49	49	49	49	52	52	54½	54½	55	55
Direct Tubes		in x in	3x43	3x48	3x61	3x54	3x61	3x67	4x65	4x73	4x87	4x97	4x90	4x103	4x84	4x97	4x102	4x119
Return Tubes		in x in.	3x83	3x95	3x114	3x101	3x114	3x126	3x130	3x144	3x153	3x175	3x168	3x187	3x168	3x187	3x186	3x209
Dia Breaching-1 Blr		in.	22	22	22	24	24	24	26	26	28	28	30	32	34	34	36	36
Dia Stack - 1 Blr		in.	20	20	20	22	22	22	24	24	26	26	28	30	32	32	34	34
Height Stack - 1 Blr		Ft.	50	50	55	55	55	60	65	70	80	80	80	90	80	95	85	95
Dia Breaching 2 Blrs		in	30	30	30	34	34	34	38	38	40	40	44	46	50	50	52	52
Dia Stack 2 Blrs		in	28	28	28	31	31	31	34	34	36	36	40	42	46	46	48	48
Height Stack - 2 Blrs		Ft	60	60	65	65	65	70	75	80	90	90	90	100	90	105	95	105
Steam Opening		in	¾	¾	6	6	6	6	8	8	8	8	8	8	8	10	10	10
Return Opening		in	4	4	4	4	4	4	5	5	5	5	6	6	6	⅙	⅙	⅙
Safety Valve Opening		in	2	2	2½	2½	2½	3	3	3	3	3½	4	4	2-2½	2-3	2-3	2-3
Height of Water Line		in	71	71	71	76	76	76	83	83	87	87	90	90	76	96	98	98
Height from Floor to Top of Blr		in	84	84	84	89	89	89	98	98	101	101	107	107	113	113	115	115
Approximate Weight		Lbs	4400	6800	7600	8300	9000	10200	11600	12440	13900	15290	18580	19920	21570	23050	24890	26960
To Open Rear Doors Allow		in	26	26	26	28	28	28	32	32	32	32	35	35	37	37	40	40

Kewanee Horizontal Tubular Boiler



With Full-Front Setting—Suspended Independent of Masonry

Specifications for Kewanee Horizontal Tubular Boilers, Half or Full Front

Longitudinal Seams, all Butt Jointed, Quadruple Riveted — For 150 Pounds Working Pressure

Horsepower of Boiler as Rated		80	90	100	110	125	150	165	180	200
Code		PAGAN	PAGOD	PAISE	PALET	PALLA	PALRY	PANCH	PANCY	PAPER
Diameter of Boiler	inches	60	60	66	66	72	72	72	78	78
Length of Tubes	feet	16	18	16	18	16	18	20	18	20
Number of 3½-Inch Tubes		54	54	66	66	86	86	86	110	110
Number of 4-Inch Tubes		44	44	54	54	70	70	70	88	88
Heating Surface for 3½-Inch Tubes	square feet	791.7	890.6	967.6	1088.6	1260.8	1418.4	1576.0	1814.0	2015.9
Heating Surface for 4-Inch Tubes	square feet	731.2	823.4	901.8	1017.9	1172.9	1319.5	1466.0	1656.8	1843.1
Heating Surface for Shell	square feet	169.6	188.5	184.3	207.4	201.1	226.2	231.3	245.2	272.4
Thickness of Shell	inches	¼	¼	5/16	5/16	¼	¼	¼	¼	¼
Thickness of Heads	inches	5/16	5/16	5/16	5/16	⅜	⅜	⅜	⅜	⅜
Width of Grates	inches	60	60	66	66	72	72	72	78	78
Length of Grates	inches	54	60	54	60	54	60	66	60	66
Area of Grates	square feet	22.5	25.0	24.75	27.5	27.0	30.0	33.0	32.5	35.75
Diameter of Stack	inches	28	28	30	30	34	34	34	36	36
Length of Stack	feet	60	60	60	60	60	60	70	60	70
Gauge of Stack		14	14	14	14	14	14	14	12	12
Length of Guys	feet	600	600	600	600	600	600	700	600	700
Diameter of Guys	inches	⅜	⅜	⅜	⅜	⅜	⅜	⅜	½	½

Trimmings

†Size of Steam Opening	inches	4	5	5	5	6	6	6	6	6
†Size of Pop Safety Valves	inches	Two 2½	Two 2½	Two 3	Two 3	Two 3	Two 3	*Two 3	Two 3½	*Two 3½
Size of Water Gauge Glass and Gauge Cocks	inches	¾	¾	¾	¾	¾	¾	¾	¾	¾
Size of Water Column Connections	inches	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼
Size of Blow-off	inches	2	2	2	2	2½	2½	2½	2½	2½
Size of Feed and Check Valves	inches	1½	1½	1½	1½	1½	1½	1½	2	2
Size of Steam Gauge Dial	inches	8½	8½	8½	8½	8½	8½	8½	8½	8½

Weights

Bare Boiler, for Full-front Setting	pounds	13350	14700	16025	17660	19930	21900	23970	26810	29370
Bare Boiler, for Half-front Setting	pounds	13530	15160	16615	18250	20755	22725	24795	27655	30365
Full Front	pounds	2400	2400	2390	2510	2970	2970	2970	3170	3170
Half Front	pounds	1140	1140	1280	1280	1510	1510	1510	1700	1700
Grates	pounds	1040	1420	1090	1490	1145	1560	1890	1705	2065
Other Castings	pounds	380	380	395	395	430	430	430	725	725
Trimmings	pounds	145	145	235	235	275	275	300	310	310
Stack and Guys	pounds	1600	1600	1750	1750	2000	2000	2300	2850	3300
Weight Complete, Full-front Setting	pounds	18915	20645	22105	24140	26750	29135	31860	35220	39940
Weight Complete, Half-front Setting	pounds	18135	19865	21385	23420	26115	28500	31225	35075	38495

Extras and Changes

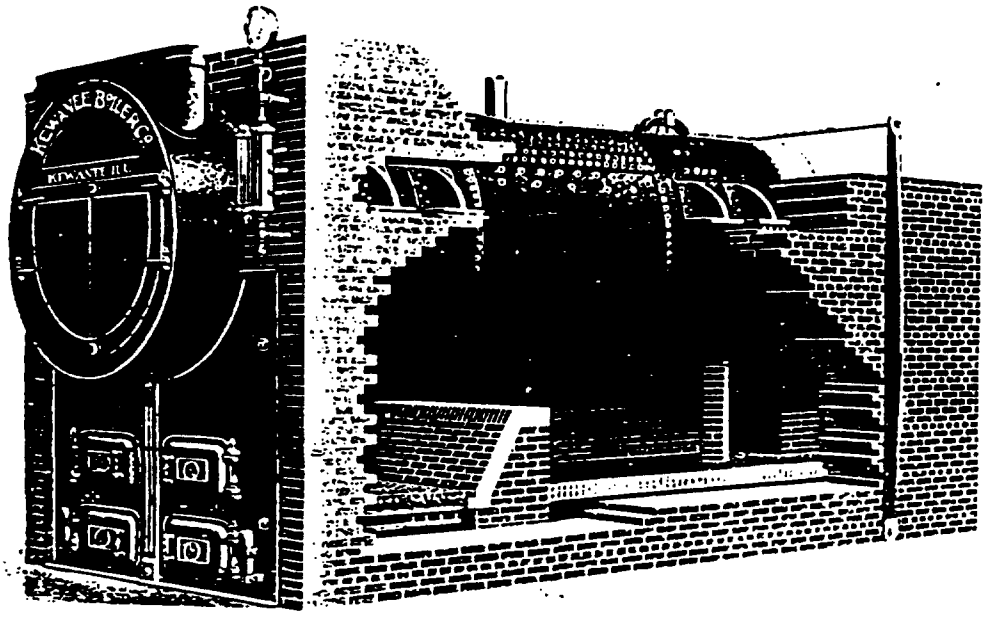
Four Wall Plates and Rollers	pounds	500	500	500	500	500	500	500	500	500
Four Buck Bars and Cross Rods	pounds	575	575	630	630	750	750	750	800	800
Two Rear Diamond Washers with Rods	pounds	250	260	250	260	250	260	260	260	260
Fire-door Arch Liners	pounds	475	475	475	475	475	475	475	500	500

*With 3½-inch tubes safety valves are one size larger. †All openings over 3 inches will be forged steel flanged nozzles.

24295

1910-1940

Kewanee Horizontal Tubular Boiler



With Half-Front Setting—Boiler Supported on Walls

Specifications for Kewanee Horizontal Tubular Boilers, Half or Full Front

Longitudinal Seams, all Butt Jointed, Triple Riveted — For 125 Pounds Working Pressure

		80	90	100	110	125	150	165	180	200
Horsepower of Boiler as Rated		80	90	100	110	125	150	165	180	200
Style		Oblique	Obese	Obtuse	Oblate	Obole	Obtend	Octet	Obelisk	Oglet
Diameter of Boiler	inches	60	60	66	66	72	72	72	78	78
Length of Tubes	feet	16	18	16	18	16	18	20	18	20
Number of 3½-Inch Tubes		54	54	66	66	86	86	86	110	110
Number of 4-Inch Tubes		44	44	54	54	70	70	70	86	86
Heating Surface for 3½-Inch Tubes	square feet	791.7	890.6	967.6	1068.6	1260.8	1418.4	1576.0	1814.0	2015.9
Heating Surface for 4-Inch Tubes	square feet	737.2	829.4	903.8	1017.9	1172.9	1319.5	1466.0	1658.6	1843.1
Heating Surface for Shell	square feet	167.6	188.5	184.3	207.4	201.1	226.2	251.3	245.2	272.4
Thickness of Shell	inches	H	H	H	H	H	H	H	H	H
Thickness of Heads	inches	½	½	½	½	½	½	½	½	½
Width of Grates	inches	60	60	66	66	72	72	72	78	78
Length of Grates	inches	54	60	54	60	54	60	66	60	66
Area of Grates	square feet	22.5	25.0	24.75	27.5	27.0	30.0	33.0	32.5	35.75
Diameter of Stack	inches	28	28	30	30	34	34	34	38	38
Length of Stack	feet	60	60	60	60	60	60	70	60	70
Gauge of Stack		14	14	14	14	14	14	14	12	12
Length of Guys	feet	600	600	600	600	600	600	700	600	700
Diameter of Guys	inches	¾	¾	¾	¾	¾	¾	¾	⅞	⅞

Trimmings

†Size of Steam Opening	inches	4	5	5	5	6	6	6	6	6
†Size of Pop Safety Valves	inches	*Two 2½	Two 3	Two 3	Two 3	Two 3	Two 3½	Two 3½	Two 3½	Two 4
Size of Water Gauge Glass and Gauge Cocks	inches	¾	¾	¾	¾	¾	¾	¾	¾	¾
Size of Water Column Connections	inches	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼
Size of Blow-off	inches	2	2	2	2	2½	2½	2½	2½	2½
Size of Feed and Check Valves	inches	1½	1½	1½	1½	1½	1½	1½	2	2
Size of Steam Gauge Dial	inches	8½	8½	8½	8½	8½	8½	8½	8½	8½

Weights

Bare Boiler, for Full-front Setting	pounds	12560	13790	14970	16460	18530	20380	22250	25480	27900
Bare Boiler, for Half-front Setting	pounds	13040	14270	15560	17050	19355	21205	23075	26505	28925
Full Front	pounds	2400	2400	2590	2590	2870	2870	2870	3170	3170
Half Front	pounds	1140	1140	1250	1250	1510	1510	1510	1700	1700
Grates	pounds	1030	1420	1090	1490	1145	1560	1890	1705	2065
Other Castings	pounds	380	350	395	395	430	430	430	725	725
Trimmings	pounds	225	225	225	225	235	260	260	335	335
Stack and Guys	pounds	1600	1600	1750	1750	2000	2000	2300	2400	3300
Weight Complete, Full-front Setting	pounds	18705	19815	21020	22910	25310	27600	30100	33215	37495
Weight Complete, Half-front Setting	pounds	17485	19035	20300	22150	24675	26985	29485	33770	37040

Extras and Changes

Four Wall Plates and Rollers	pounds	500	500	500	500	500	500	500	500	500
Four Buck Bars and Cross Rods	pounds	575	575	610	610	750	750	750	800	800
Two Rear Diamond Washers with Rods	pounds	260	260	260	260	250	250	250	250	250
Fire-door Arch Liners	pounds	475	475	475	475	475	475	475	500	500

*With 3½-inch tubes this boiler has two 3-inch safety valves. †All openings over 3 inches will be forged steel flanged nozzles.

1940-1960

KEWANEE HI-TEST *Series HT*

Specifications—

BOILER NUMBER	HT 50	HT 60	HT 75	HT 100	HT 125	HT 150
HORSEPOWER	50	60	75	100	125	150
STEAM RADIATION—HAND FIRED ..... SQ. FT.	7000	8400	10500	14000	17500	21000
—MECHANICALLY FIRED ..... SQ. FT.	8500	10200	12750	17000	21250	25500
HEATING SURFACE ..... SQ. FT.	500	600	750	1000	1250	1500
GRATE AREA OR PLAN AREA ..... SQ. FT.	18.3	20.3	22.5	27.5	30.2	35.7
FURNACE VOLUME ..... CU. FT.	72	90	105	140	181	213
FURNACE WIDTH ..... IN.	48	48	53	59	65	65
LENGTH ..... IN.	55	61	61	67	67	79½
HEIGHT ABOVE GRATES ..... IN.	40	46	46	50	60	60
CYLINDER DIAMETER, FRONT ..... IN.	42	42	42	48	54	54
REAR ..... IN.	66	66	72	78	84	84
BOILER LENGTH OVERALL ..... FT. IN.	12-5	13-5	14-3	15-5	16-2	18-6
BOILER HEIGHT, FLOOR TO TOP OF SHELL ..... IN.	107	113	113	125	142	142
WATER LINE HEIGHT ..... IN.	95	101	101	110	124	124
*STEAM SUPPLY SIZE ..... IN.	4	4	4	5	6	6
BLOW-OFF SIZE ..... IN	2	2	2	2	2½	2½
FEED WATER SIZE ..... IN	1¼	1½	1½	1½	1½	1½
INJECTOR SUPPLY SIZE ..... IN	1	1	1¼	1¼	1½	1½
SAFETY VALVE NO. AND SIZE—125 LB. ..... IN.	2-2½	2-2½	2-3	2-3	2-3	2-3
150 LB. ..... IN.	2-2½	2-2½	2-3	2-3	2-3	2-3
SIZE MAY VARY WITH SET PRESSURE OF VALVE						
BREECHING DIAMETER ..... IN.	24	26	29	31	33	36
STACK DIAMETER ..... IN.	22	24	27	29	31	34
STACK HEIGHT—HAND FIRED ..... FT.	55	60	65	70	75	80
STACK HEIGHT—MECHANICALLY FIRED ..... FT.	45	50	55	60	65	70
BREECHING DIAMETER, TWO BOILERS ..... IN.	31	34	38	41	44	48
STACK DIAMETER, TWO BOILERS ..... IN.	29	32	36	38	41	45
STACK HEIGHT, TWO BOILERS, HAND FIRED ..... FT.	65	70	75	80	85	90
STACK HEIGHT, TWO BOILERS MECHANICALLY FIRED ..... FT	55	60	65	70	75	80
FIREBRICK 9 IN. WALL, ABOVE BASE LINE ..... NUMBER	1300	1450	1700	2050	2450	2600
COMMON BRICK IN BASE AND PIER ..... NUMBER	650	700	800	1000	1150	1200
2 IN. INSULATION LINING ..... SQ. FT	130	155	160	195	225	250
OUTSIDE SURFACE TO COVER ..... SQ. FT.	115	145	165	200	250	300
APPROX. SHIPPING WEIGHT						
BOILER, HAND-FIRED, 125 LB. ..... LB.	13660	15380	18870	22920	26720	30200
150 LB ..... LB	13760	15580	19270	23420	27420	30900
MECHANICALLY-FIRED, 125 LB ..... LB.	12620	14230	17580	21270	24850	28220
150 LB ..... LB	12720	14430	17980	21770	25550	28920
FURNACE REFRACTORY & INSULATION ..... LB.	10150	10750	13250	16550	18700	19400
**CODE WORD, STEAM BOILER—125 LB. W. P.	HTETF	HTETG	HTETH	HTETI	HTETJ	HTETK
—150 LB. W. P.	HTEFF	HTEFG	HTEFH	HTEFI	HTEFJ	HTEFK

**For Oil, Gas or Stoker, add word to code; example—ship one HTETF OIL.
*Series 30 Nozzles for 250 lb. cast-iron or 300 lb. steel fittings.
Steam supply and blow-off sizes given are openings regularly found on boilers in stock.

EQUIPMENT — Flue Gas Chambers — Rear, with Lining, insulated Doors and Frame; Front, with Doors and Frame; Damper in Outlet; Rear and Center Saddles; Steel Casing extending to top of base with front.

Coal Hand Fired—Fire and Ash Doors; Dead Plate, Stationary Grates; or Shaking, Semi or Full Dumping assemblies at extra cost.

FIRE TOOLS for Coal—Hoe, Poker, Slice Bar, Flue Cleaner with handle.

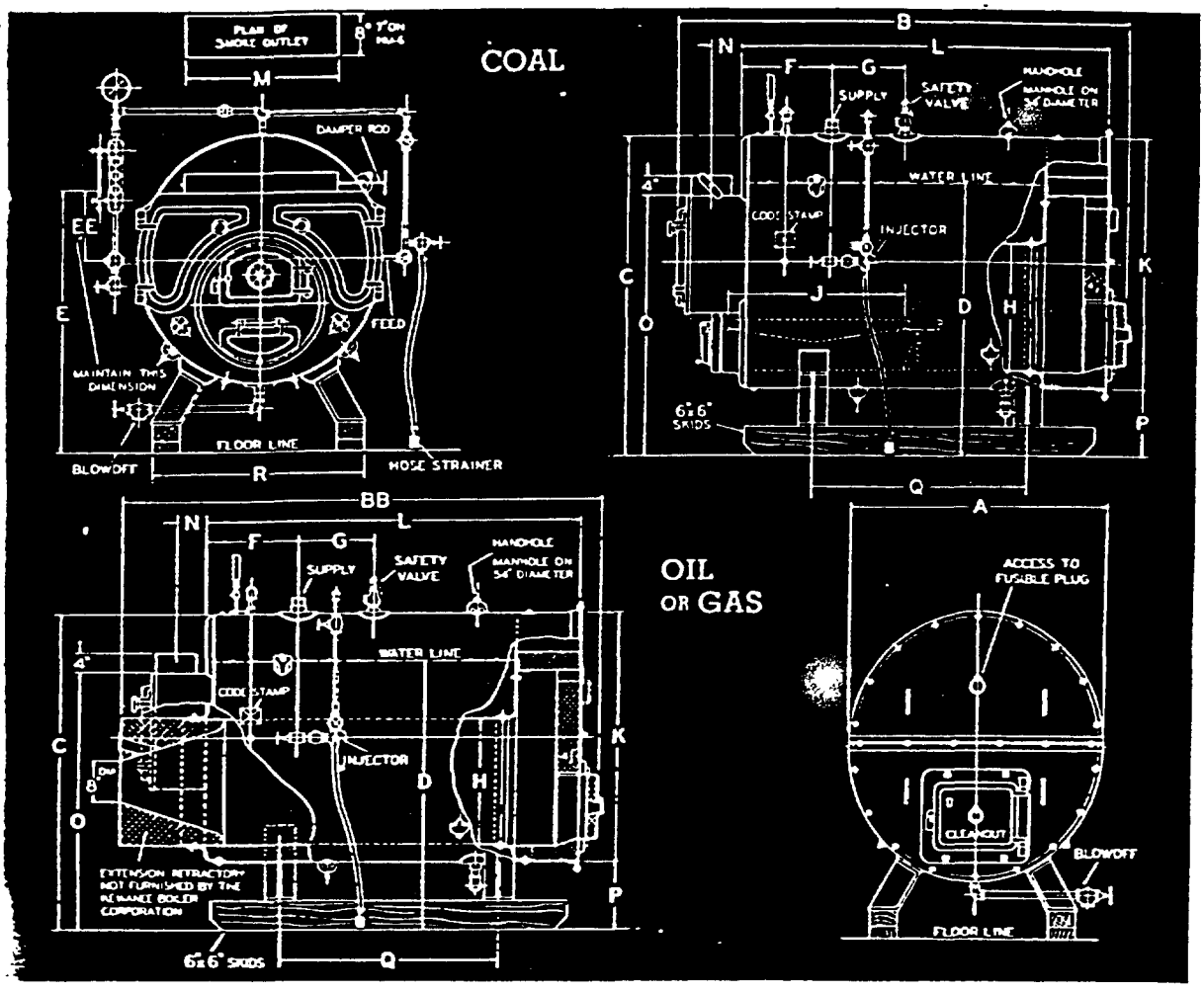
RE TOOLS for Oil, Gas, Stoker—Flue Cleaner ly with handle.

Full Metal Bases can be furnished at additional cost. Boiler may be shipped on skids; no Refractory Fire-box Lining included.

TRIMMINGS for Coal, Stoker, Oil, Gas—Steam Gauge with Syphon and Cock; extra heavy cast iron Water Column with Water Gauge and Gauge Cocks, Compression Try Cocks; Safety Valves as required by A.S.M.E. Code; Blow-off Valve and Cock; Globe and Check Valve for feed pipe.

No other accessories or piping.

Special trimmings furnished at additional cost.



KEWANEE Return Tube SCOTCH MARINE BOILER

SPECIFICATIONS *NEW* 100 Lb. Steam — A.S.M.E. CODE *NEW* High Pressure Steam

Boiler Number	HM6	HM9	HM15	HM20	HM25	HM30
Rating, Mechanical-Fired						
—Horsepower	7	12	18	24	30	36
—Thousands of Btu per Hour	234	400	600	800	1020	1200
—Pounds of Steam per Hour	242	410	620	830	1050	1240
Rating, Hand-Fired						
—Horsepower	6	9.9	15	20	25	30
—Thousands of Btu per Hour	200	331	500	670	840	1020
—Pounds of Steam per Hour	207	342	520	690	865	1050
Heating Surface sq ft	60	99	150	200	250	300
Grate Area sq ft	3.5	4	6	8	10	12
Furnace Volume cu ft	15.5	24.1	29.4	34.6	47.3	53.1
K—Shell Diameter in	42	48	48	48	54	54
L— Length in	61	63	84	105	105	122
H—Furnace Diameter in	21	24	24	24	28	28
J—Grate Length in	24	24	36	48	54	60
Steam Supply Size in	2	2	2	2	2	3
Blow-off Size in	1¼	1¼	1¼	1¼	1¼	1½
Safety Valve Size—						
Coal, hand-fired in	¾	1	1¼	1½	2	2½
Oil or Gas in	1	1¼	2	2½	2½	2
Stoker in	1	1¼	1½	2	2½	2
Fire Door Opg. Width in	15	16	16	16	18	18
Height in	10	11	11	11	12	12
Ash Door Opg. Wdt x Hg: in	15x6¼	16x6½	16x6½	16x6½	18x7½	18x7½
Breeching Diameter in	14	16	17	19	20	22
Stack Diameter in	12	14	15	17	18	20
Height ft	30	35	40	40	40	45
Outside Surface to Cover sq ft	57	67	90	111	125	145
Shipping Weight—On Skids with Regular Fixtures less Stack lbs	3700	4900	6300	7000	7800	8500

Boiler Number	HM6	HM9	HM15	HM20	HM25	HM30
A—Boiler Width Overall in.	47	53	53	53	59	59
B—Length, Overall, hand-fired in.	77½	80	101	122	123	140
BB— —oil-gas in.	82½	84½	105½	126½	127	144
C—Height Overall Shell in.	54½	62	62	62	67½	67½
D—Water Line in.	46½	53	53	53	57½	57½
E—Water Column Height in.	44½	51	51	51	55½	55½
EE—Height from Boiler CL in.	11¼	13¼	13¼	13¼	15	15
F—Steam Supply Location in	13	14	18	24	18	24
G—Safety Valve Location in.	15	15	15	16½	22½	16½
M—Breeching Connection in	24	30	30	30	38	38
N— Location in.	5½	6	6	6	7½	7½
O— Height in.	44¼	50	50	50	54½	54½
P—Clearance Beneath Shell in	12	13¼	13¼	13¼	13	13
Q—Legs Location in.	38½	39½	43	61	60	77
R—Skids Location in.	37½	42	42	42	45	45
Plate Thickness—Shell in.	5/16	5/16	5/16	5/16	5/16	5/16
—Heads in	5/16	5/16	5/16	5/16	5/16	5/16
—Furnace in.	5/16	5/16	5/16	5/16	11/32	11/32
Return Tubes—Number	16	28	28	28	36	36
—Diameter in	3	3	3	3	3	3
—Length in	40	42	63	84	83	100
Steel Smoke Stack—Gauge No	14	14	14	14	12	12
at extra cost —Diameter in	12	14	15	17	18	20
—Length in	30	35	40	40	40	45
—Weight lbs	350	450	550	650	1000	1200

EQUIPMENT—All Boilers mounted on skids equipped with Handholes. Manhole in 34" boilers only. Smokebox with Damper. Insulated Flue Doors. Refractory lined rear Combustion Chamber. Rear End Plate with cleanout door. ¾" Fusible Plug Socket Wrench. Flue Scraper with handle.

TRIMMINGS—All Steam Boilers: Cast Iron Water Column with standard Gauge Glass Cocks, Gauge Glass Guards, three Try-cocks. Steam Gauge Siphon and Cock. Safety Valve. ¾" Feed-water Inspirator. Blow-off Valve. Piping and Fittings for attaching trimmings to boiler.

No trimmings furnished with hot water boilers. No mechanical firing equipment included and no damper in smokebox outlet.

COAL Hand-Fired—Cast Iron Furnace front with Firedoor and Liner. Ash Door with Ratchet Draft door. Stationary Grates and Supports. Refractory Bridgewall Hoe. Poker.

OIL or GAS Fired—Steel Furnace extension with cover plate and peephole. STOKER Fired—Furnace Front with doors NOT furnished by K. B. Corp.

24298

1956 - 1967
Same as HM-800 Series

KEWANEE HH SCOT SERIES WELDED STEEL BOILERS

DIMENSIONS & SPECIFICATIONS	125 - 150 lbs S. W. P.								Oil or Gas		
Boiler Number	HH-52	HH-61	HH-74	HH-87	HH-109	HH-130	HH-152	HH-174	HH-217	HH-261	HH-304
Rating, Steam Radiation....sq ft	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
—Horsepower	52	61	74	87	109	130	152	174	217	261	304
—Thousands of Btu per Hour	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
—Pounds of Steam per Hour	1800	2100	2560	3010	3750	4510	5260	6010	7510	9010	10510
Heating Surface....sq ft	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Combustion Volume....cu ft	57.9	62.4	79.8	87.5	110.2	141.1	153.7	174.0	217.0	262.9	308.8
A—Boiler Diameter.... in.	60	60	66	66	72	78	78	84	90	96	102
B—Boiler Length....ft in.	10-6	11-8½	12-0	13-8	14-10	15-3	17-3	16-4	17-6	18-6	18-6
C—Furnace Diameter, Inside.... in.	26	26	29	29	31	34	34	37	40	44	48
D—Furnace Length....ft in.	7-11	9-1½	9-3	10-11	11-11	11-11	13-11	12-11	13-11	14-11	14-11
E—Combustion Chamber Length.... in.	24	24	26	26	28	33	33	33	35	34	34
F—Refractory Wall.... in.	7	7	7	7	7	7	7	8	8	9	9
Steam Supply Size.... in.	4	4	6	6	6	6	6	6	8	8	8
Blow-off Size.... in.	2	2	2	2	2	2	2½	2½	2½	2½	2½
Feed Water Connection Size,R&L... in.	1½	1½	1½	1½	1½	1½	1½	1½	1½	2	2
Injector Supply Size.... in.	1	1	1¼	1¼	1½	1½	1½	1½	1½	1½	1½
Safety Valve Boiler Openings.... in. Verify all sizes.	2-2	2-2	2-2	4	4	4	4	4	5	5	6
Breeching Diameter.... in.	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter.... in.	21	22	24	26	28	29	31	33	36	38	40
Stack Height.... ft	35	40	40	45	50	50	55	50	55	55	55
Breeching Diameter, Two Boilers.. in.	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers.. in.	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers.. ft	40	45	45	50	55	55	60	55	60	60	60

24299

KEWANEE HM SCOT SERIES WELDED STEEL BOILERS

DIMENSIONS & SPECIFICATIONS — 125 - 150 lbs S. W. P. — Oil or Gas

Boiler Number		HM-52	HM-61	HM-74	HM-87	HM-109	HM-130	HM-152	HM-174	HM-217	HM-261	HM-304
G—Boiler Height, Floor to top of Shell	in.	73	73	79	79	85	91¼	91¼	97¼	103½	109½	115½
H—Water Line Height	in.	62	62	65½	65½	69½	73½	73½	77½	82 3/4	87½	92 3/4
J—Water Column Height	in.	60	60	63½	63½	67½	71½	71½	75½	80 3/4	85½	90 3/4
K—Steam Supply Height	in.	78	78	84¼	84¼	90½	96½	96½	102½	109½	115½	121½
L—Steam Supply Location	in.	24	30	30	36	42	42	48	48	48	48	48
M—First Safety Valve Location	in.	51	52	53	60	60	60	78	66	78	84	84
—Second Safety Valve Location	in.	12	12	12	..	..	..	..	..	..	..	..
N—Blow-off Location	in.	43	43	45	45	47	52	52	53	55	55	55
O—Furnace Height Centers	in.	31½	31½	33	33	34 3/4	36½	36¼	37 3/4	39½	41½	43½
P—Supporting Saddle Location	in.	15	15	15	18	18	18	24	24	24	24	24
R—Supporting Saddle Ctr to Ctr	ft in.	6-9	7-11	8-1	9-6	10-6	10-6	12-0	11-0	12-0	13-0	13-0
S—Saddle Length	in.	40	40	44	44	48	52	52	56	60	64	68
T—Saddle Width	in.	5	5	5	5	6	6	6	8	8	10	10
U—Smokebox Depth	in.	14	14	16	16	16	18	18	18	18	20	20
V—Breeching Connection Height	in.	59⅓	59⅓	63¼	63¼	67¼	71	71	75	80½	85	90½
W—Breeching Connection Length	in.	47	47	52	52	56	65	65	68	71	76	83
X—Breeching Connection Width	in.	12	12	14	14	14	16	16	16	16	18	18
Return Tubes —Number		60	60	73	73	84	102	102	128	149	168	196
—Diameter	in.	3	3	3	3	3	3	3	3	3	3	3
—Length	ft in.	8-0	9-2½	9-4	11-0	12-0	12-0	14-0	13-0	14-0	15-0	15-0
Outside Surface to Cover	sq ft	165	184	207	236	280	311	352	359	412	465	494
Approx. Weight —125 lb W.P.	lb	10100	10600	12500	14500	17200	21200	24000	27100	31700	37500	42000
—150 lb W.P.	lb	11000	11400	13400	15500	18400	22500	25500	28900	33800	39700	44600

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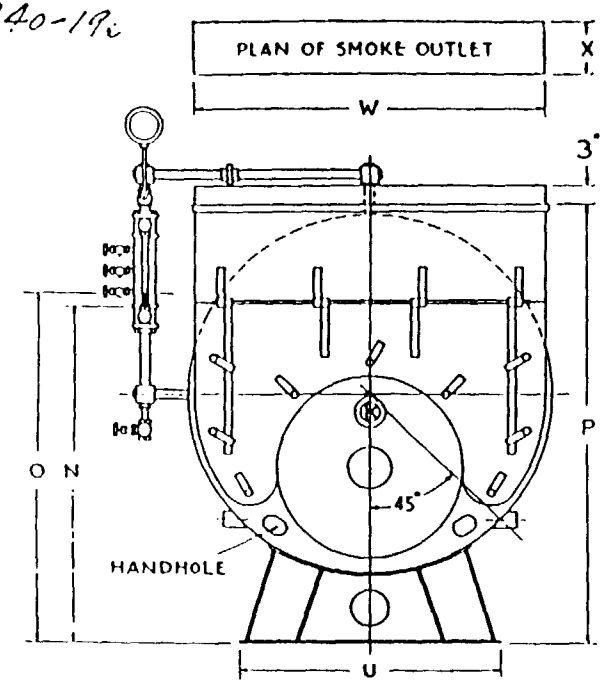

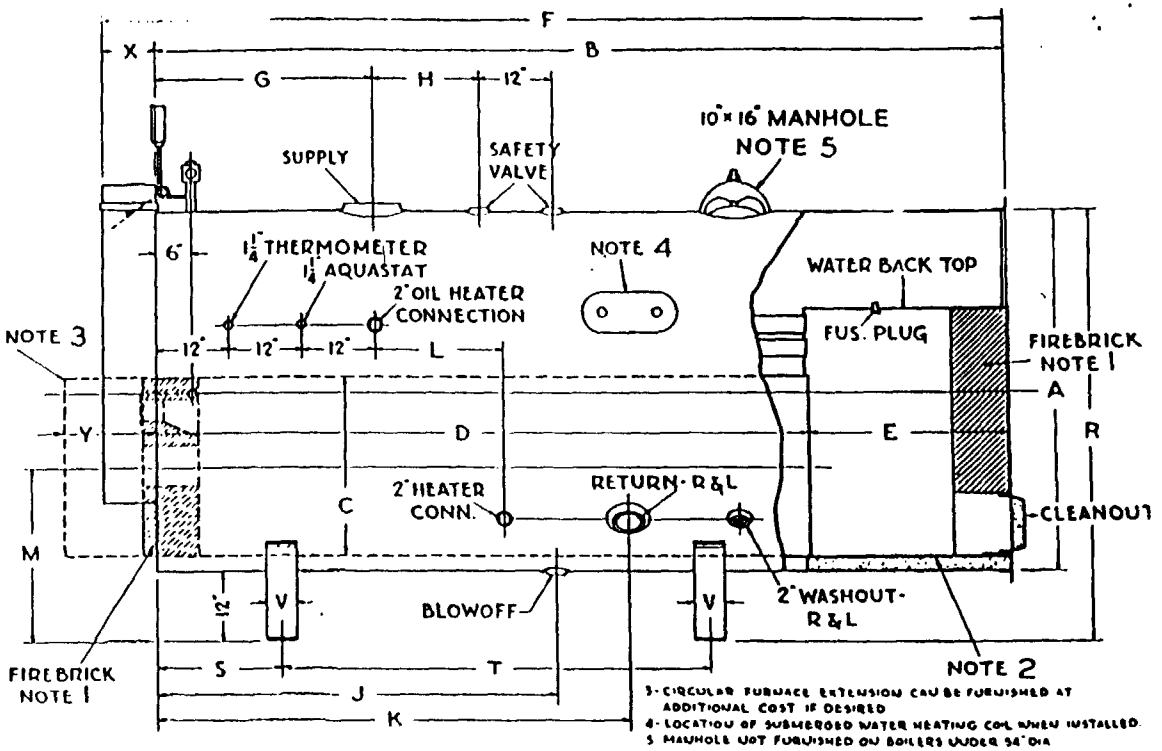

1- FIREBRICK NOT FURNISHED BY KEWAUEE BOILER CORP
2 REFRACTORY LINING FURNISHED BY KEWAUEE BOILER CORP

3- CIRCULAR FURNACE EXTENSION CAN BE FURNISHED AT ADDITIONAL COST IF DESIRED
4- LOCATION OF SUBMERGED WATER HEATING COIL WHEN INSTALLED
5 MANHOLE NOT FURNISHED ON BOILERS UNDER 54" DIA

SPECIFICATIONS KEWANEE SCOTCH MARINE BOILER 15 lbs. W.P. Welded M-8000 Series Oil or Gas

Boiler Number	M-8173	M-8174	M-8175	M-8176	M-8177	M-8178	M-8179	M-8180	M-8181	M-8182	M-8183	M-8184	M-8185	M-8186	M-8187	M-8188	M-8189	M-8190
Rating—Steam Radiation.....Sq. Ft.	2680	3160	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
—Water Radiation.....Sq. Ft.	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
—Btu per Hour.....1000's	643	758	876	1020	1116	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI Min.).....Sq. Ft.	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI Min.).....Cu. Ft.	19.2	22.6	26.1	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume.....Cu. Ft.	26.8	29.7	31.0	34.1	37.3	47.2	50.1	59.0	64.4	82.7	90.8	121.4	134.5	160.9	174.6	225.8	277.7	311.5
Breeching Diameter.....In.	18	18	20	20	20	22	22	24	24	28	28	31	31	35	35	39	41	43
Stack Diameter.....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height.....Ft.	35	40	35	40	45	35	40	35	40	40	45	45	50	50	55	60	60	60
Breeching Diameter, Two Boilers.....In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers.....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers.....Ft.	45	50	45	50	55	45	50	45	50	50	55	55	60	60	65	70	70	70
Steam Supply Size.....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size.....In.	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size.....In.	1½	2	2	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Blow-Off Size.....In.	1½	1½	2	2	2	2	2	2	2	2	2	2	2	2½	2½	2½	2½	2½
Shipping Weight.....Lbs.	3300	3700	4500	4900	5300	5700	6100	6900	7500	8400	9600	12700	14200	17400	19000	22500	25750	28300

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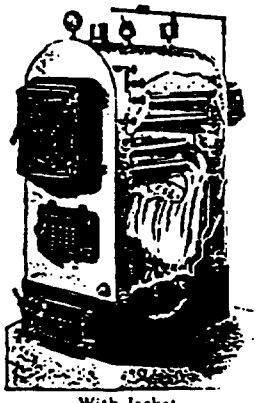
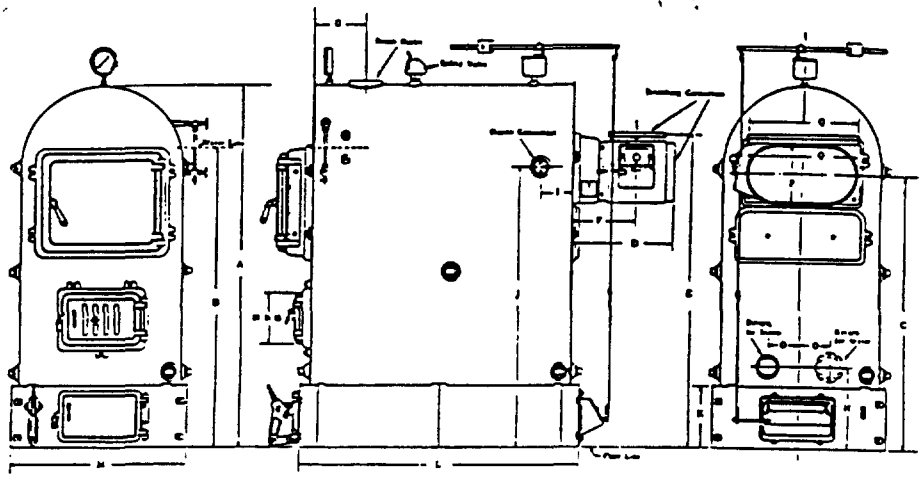
Kewanee Residence Type R Boiler

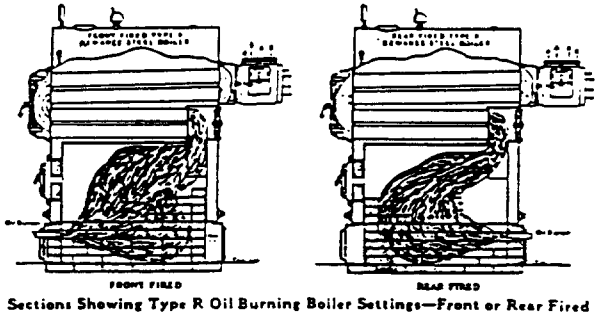


With Jacket, or Without, as shown.



Type R Steel Boiler is a later Kewanee development employing characteristically sound steel construction in the compacted style of heating unit. It is designed to serve the smaller kind of building—such as garage, store, school, church, apartment, office or residence.

Every kind of solid fuel, coke, all grades of soft or hard coals and their briquette or powdered forms are burned with excellent success, also any liquid fuel oils, and natural or commercial gas can be used with high efficiency in Kewanee Type R Boilers. Provision is made so that Kewanee Indirect Hot Water Heating Coils may be applied in any sizes.



Sections Showing Type R Oil Burning Boiler Settings—Front or Rear Fired

Data and Measurements. Nos. 740 to 748—For Bituminous Coal. 2740 to 2748—Anthracite. 1740 to 1748—Oil, Gas or Stoker

Number of Boiler	*2740–2740	2741–2741	2742–2742	2743–2743	2745–2745	2746–2746	2747–2747	2748–2748
Code, Boilers 740 to 748	Resam	Resay	Rescu	Reset	Resew	Resin	Resol	Resi
Code, Boilers 2740 to 2748	Rusam	Rusay	Ruscu	Ruset	Rusew	Rusin	Rusol	Rusi
Rated Capacity, Steam—Sq. Ft	430	590	790	1000	1350	1600	1760	1960
Rated Capacity, Water—Sq. Ft	690	940	1260	1600	2160	2560	2850	3140
Heating Surface—Sq. Ft	44	54	63	73	101	114	127	140
Grate Area—Sq. Ft	3.0	3.9	4.8	5.6	6.7	7.8	8.8	9.9
Width of Boiler—Inches	31	31	31	31	31	31	31	31
Length of Boiler—Inches	27½	33½	39½	45½	45½	51½	57½	63½
Size of Return Inlet added for Water—Inches	2½	2½	2½	2½	4	4	4	4
Size of Safety Valve Opening—Inches	1	1	1¼	1¼	1¼	1¼	1¼	2
Size of Steam or Water Outlet—Inches	3	3	4	4	5	6	6	6
Size of Steam Return Inlet—Inches	2½	2½	2½	2½	3	3	3	3
*A—Overall Height, Floor to Top of Shell—Inches	59½	59½	59½	59½	70½	70½	70½	70½
B—Height of Water-line—Inches	48	48	48	48	58½	58½	58½	58½
Chimney—Diameter—Inches	12	12	12	12	16	16	16	16
Chimney—Height—Feet	35	35	35	35	40	40	40	40
Breeching Diameter—Inches	14	14	14	14	18	18	18	18
Breeching Connection Size, PaQ—Inches	8½x17	8½x17	8½x17	8½x17	11x22	11x22	11x22	11x22
C—Height of End Breeching Connection Center—Inches	49½	49½	49½	49½	54	54	54	54
D—Back of Boiler to End Breeching Connection—Inches	17½	17½	17½	17½	20	20	20	20
E—Ht Breeching Connection—Inches	55½	55½	55½	55½	61½	61½	61½	61½
F—Back of Boiler to Top Breeching Connection Center—Inches	11¼	11¼	11¼	11¼	12½	12½	12½	12½
G—Steam or Water Outlet Center to Boiler Front—Inches	11	11	11	11	12	12	12	12
H—Ht. of Return Inlet Centers—Inches	15¼	15¼	15¼	15¼	16	16	16	16
Heater Connection Size—Inches	2	2	2	2	2	2	2	2
O—Return Inlet Offset from Boiler Center—Inches	5	5	5	5	6	6	6	6
I—Heater Connection Center from Back of Boiler—Inches	6½	6½	6½	6½	6½	6½	6½	6½
J—Heater Connection Height from Floor—Inches	43¼	43¼	43¼	43¼	54¼	54¼	54¼	54¼
K—Height of Base—Inches	12	12	12	12	12	12	12	12
L—Length of Base—Inches	31½	37½	43½	49½	49½	55½	61½	67½
M—Width of Base—Inches	30	30	30	30	34	34	34	34
Outside Surface to Cover, Unjacketed—Sq. Ft	33	38	43	48	60	66	71	77
Approximate Weight—Pounds	1700	1900	2150	2360	2800	3050	3300	3550
Number of Boiler	1740	1741	1742	1743	1745	1746	1747	1748
Code	Rosam	Rosay	Roscu	Roset	Rosew	Rosin	Rosol	Rosi
Rated Capacity, Steam—Sq. Ft	450	620	840	1120	1470	1900	2160	2580
Furnace Volume—Cu. Ft	6.6	8.8	10.9	13.0	16.5	19.0	21.6	24.2
Approximate Weight—Pounds	1540	1650	1900	2060	2500	2730	2920	3120

*For Jacketed Boiler, add 1-inch to overall height. For Water, add word to code, example: Ship today one RESCU WATER complete

For Plumbing and Heating Catalog

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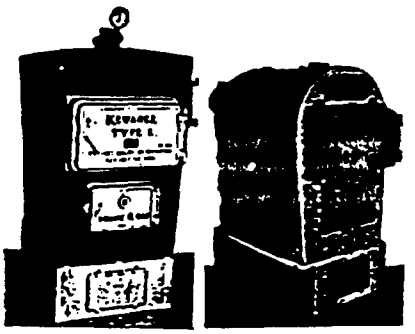
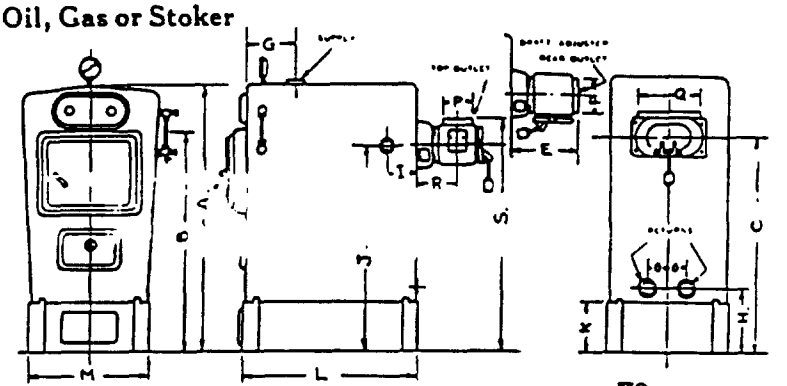
1929-1946

"83R" Series Square Boilers Oil, Gas or Stoker



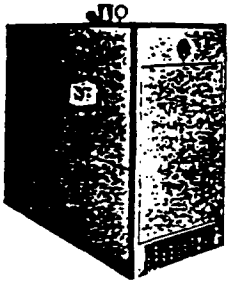


Square Jacketed Type "R" Steel Boiler

DATA AND MEASUREMENTS. 83R1-83R4 with Tapered Sides, 83R6-83R9 have Straight Sides

Boiler Number ..... Oil or Gas / Stoker	83R1 O83R1	83R2 O83R2	83R3 O83R3	83R4 O83R4	83R6 O83R6	83R7 O83R7	83R8 O83R8	83R9 O83R9
Rated Capacity—Steam ..... Sq. Ft	901	1105	1326	1513	2091	2363	2652	2924
Water ..... Sq. Ft	1441	1768	2121	2420	3345	3780	4245	4678
Btu. per Hour ..... 1000's	216	265	318	363	502	567	637	702
Heating Surface ..... Sq. Ft	53	65	78	89	123	139	156	172
Net Furnace Volume ..... Cu. Ft	6 6	8.8	10 9	13.0	16.5	19.0	21.6	24 2
Width Boiler Overall ..... In	32½	32½	32½	32½	32	32	32	32
A—Height Boiler Overall ..... In	60½	60½	60½	60½	71½	71½	71½	71½
Shell Length Overall ..... In	27½	33½	39½	45½	45½	51½	57½	63½
Firebox Height ..... In	21	21	21	21	24	24	24	24
Adda'l. Furnace Height for Stoker** In	4	4	4	4	6	6	6	6
Firebox Width ..... In	21½	21½	21½	21½	25½	25½	25½	25½
Firebox Length ..... In	20	26	32	38	38	44	50	56
*B—Water Line Height ..... In	48	48	48	48	58½	58½	58½	58½
C—Smoke Outlet End. Height ..... In	49½	49½	49½	49½	54	54	54	54
E—Smokehood Length ..... In	16	16	16	16	18½	18½	18½	18½
G—Steam Supply Location ..... In	12½	12½	12½	12½	13½	13½	13½	13½
H—Return Height ..... In	15½	15½	15½	15½	16	16	16	16
I—Heater Connection Location ..... In	7½	7½	7½	7½	7½	7½	7½	7½
J—Heater Connection Location ..... In	43½	43½	43½	43½	54½	54½	54½	54½
K and M—Base Height*** x Width .... In.	12x30	12x30	12x30	12x30	12x34	12x34	12x34	12x34
L—Base Length ..... In	31½	37½	43½	49½	49½	55½	61½	67½
O—Return Location ..... In	5	5	5	5	6	6	6	6
P—Breaching Connection Width ..... In	8½	8½	8½	8½	11	11	11	11
—Breaching Connection Length ..... In	17	17	17	17	22	22	22	22
—Boiler to Smoke Outlet Center ..... In	9¾	9¾	9¾	9¾	11	11	11	11
—Smoke Outlet Top. Height ..... In	55½	55½	55½	55½	61½	61½	61½	61½
Regal Jacket Overall 33½" wide. Length In.	59½	65½	71½	77½	.....	.....	.....	.....
Steam Supply Size. or Water ..... In	4	4	4	4	5	6	6	6
Steam Return Size ..... In	2½	2½	2½	2½	3	3	3	3
Added Return for Water ..... In	2½	2½	2½	2½	4	4	4	4
Safety Valve Size ..... In	1½	1½	1½	1½	1½	1½	2	2
Heater Connection Size ..... In	2	2	2	2	2	2	2	2
Chimney Diameter x Height ..... In. x Ft	10x35	11x35	12x35	12x40	14x40	14x40	15x45	16x50
Breaching Diameter ..... In	12	13	14	14	16	16	17	18
Outside Surface to Cover, Unjacketed. Sq. Ft	33	38	43	48	60	66	71	77
Shipping Weight, Jacketed ..... Lbs	1600	1800	2000	2200	2800	2900	3100	3300

*For 83R1 to 4 sizes, raise Water Line to 49" for Single Coil; 50" for Double Coil or Instantaneous Coil. For 83R6 to 9 sizes, raise Water Line to 59" for Double Coil or Instantaneous Coil.
**When higher bases are used, height of Water Line B—is increased, also dimensions A—C—H—J—K—S—.
***Additional Height bases up to 21" furnished without extra cost.
For Stoker, Firedoor with air slots and baffle plate replaces Oil-Gas refractory insulated door with peephole.



Regal Smartline Jacket for Complete Enclosure with Any Oil or Gas Burner on 83R1-2-3-4

Also 1742-3, and GA-2R1-2-3-4.

Kewanee 83R Series is a Jacketed Square Type "R" Residence Boiler, of substantial steel construction, especially proportioned for Oil, Gas or Stoker, retaining in all respects the Kewanee standard of Quality.

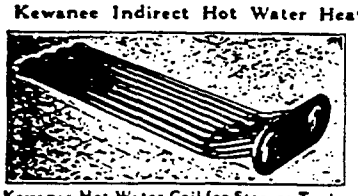
83R conforms to construction Code of A.S.M.E.

Has 2-pass tubes; with spinner blades for Oil-Gas; two-way draft adjuster; all steel base of new and improved design.

Covered Coil Box in front head for Kewanee Copper Coils of any capacity for Storage Tank Hot Water or Instantaneous Flow without Tank. Incinerator grates can be installed in larger sizes.

Stack Control Opening is provided in Rear Head and in Front Smokebox Frame. Tapped openings either side of Boiler Shell can be used for Aquastat. There are plenty washout plugs in shell, and knock-out discs in Jackets opposite all Boiler openings. All Jacketed Kewanee Boilers have indestructible baked enamel steel Jacket, with insulation lining or blanket.

Kewanee Indirect Hot Water Heating Coils Maximum Length in Each Boiler



Kewanee Hot Water Coil for Storage Tank
S6-24 means Single row 6 pipes 24" long.
D8-60 means Double rows 8 pipes 60" long

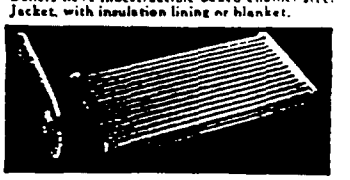
Boiler ratings do not include allowances for heating domestic hot water with Indirect Coils.

All Coil capacity ratings are with Boiler Water at steaming temperature. For summer use, and intermittently fired fuels, use capacity listed with 180° Boiler Water.

For GRAVITY CIRCULATION with STORAGE TANK, capacity listed is the number of gallons raised 100° in 3hours. Allow ½ sq. ft. of steam radiation for each gallon capacity.

For INSTANTANEOUS TANKLESS PERFORMANCE, capacity luted is the number of gallons raised 100° in 1 hour.

Allow 4 sq. ft. of steam radiation for each gallon capacity, except no allowance is required when water heating demand is less than 10 minutes in any hour.



Coil for Instantaneous Flow without Tank
TN1-Triple rows of pipes for 83R Boilers.
QN1-QN9 Quadruple rows of pipes, 83R Boilers
DN1-DN9 Double rows for Sq. "R" Boilers.

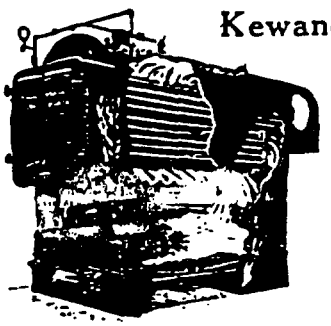
Boiler No.	Coil No.	For Storage Tank Operation: Rated Capacity Gals. Heated 40°-140° 3 Hrs. in Boiler Water 212° F.	180° F	Boiler No	Coil No	For Instantaneous Flow: Rated Capacity Gals. Heated 40°-140° in 180° Boiler Water 1 Hr	1 Min
742	S6-24	90	55	742	DN1	185	3.1
	S8-24	120	70				
	D6-24	180	110				
	D8-24	240	145				
742	D8-30	320	190	742	DN2	240	4 0
742	D8-36	400	240	742	DN3	295	4 9
743 773 745	D8-42	480	290	743 773 745	DN4	350	5 8
746 774	D8-48	560	335	746 774	DN7	400	6 7
747 775	D8-54	640	385	747 775	DN8	450	7 5
748	D8-60	720	430	748 776	DN9	510	8 5
776 to 790	D8-66 to D8-120	800 to 1520	480 to 910	Larger sizes on application			

Boiler No.	Coil No.	For Storage Tank Operation: Rated Capacity Gals. Heated 40°-140° 3 Hrs. in Boiler Water 212° F.	180° F	Boiler No.	Coil No.	For Instantaneous Flow: Rated Capacity Gals. Heated 40°-140° in 180° Boiler Water 1 Hr.	1 Min
83R1	S6-24	90	55	83R1	TN-1	185	3 1
	S8-24	120	70		QN-1	240	4 0
	D6-24	180	110				
	D8-24	240	145				
83R2	D8-30	320	190	83R2	QN-2	310	5 2
83R3	D8-36	400	240	83R3	QN-3	375	6 3
83R4 83R6	D8-42	480	290	83R4 83R6	QN-4	445	7 4
83R7	D8-48	560	335	83R7	QN-7	510	8 5
83R8	D8-54	640	385	83R8	QN-8	580	9 7
83R9	D8-60	720	430	83R9	QN-9	650	10 8
		For larger volume, two Storage Tank Coils may be installed in some boilers					

24303

1928-1932

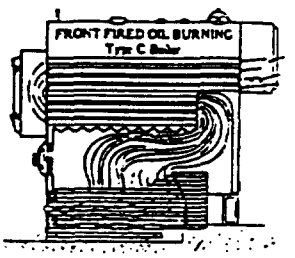
Kewanee Type C Electric-Weld Boiler

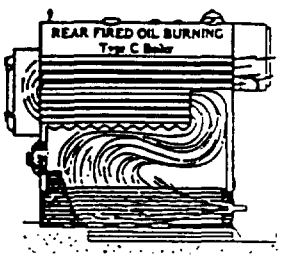


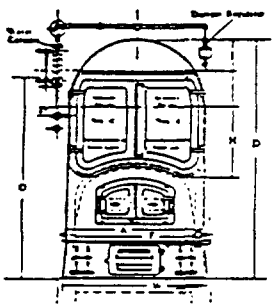
The Kewanee Type C Boiler exemplifies the latest in expert thought. It is built of steel plate, seven simple shapes, solidly welded into a homogeneous unit by the well proven electric metallic-arc-puddling process same as has been used on welded details of Kewanee Boilers for years, and it has the Patent Corrugated Crown Sheet.

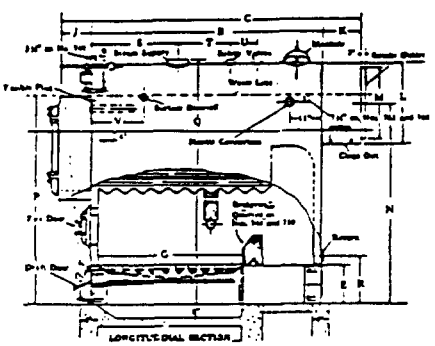
This Boiler is built to the A. S. M. E. Code for low pressure heating boilers. It is a real boiler in construction—a scientifically designed steam generator.

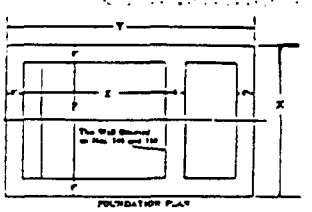
Type "C" Boilers may be fitted at factory with Kewanee Indirect Hot Water Heating Coils at extra cost.











Specifications—Nos. 749-770 for Bituminous Coal. Nos. 2749-2770 for Anthracite Coal. Nos. 1749-1770 for Oil, Gas or Stoker

Number of Boilers.....	749 2749	750 2750	751 2751	752 2752	753 2753	754 2754	755 2755	756 2756	757 2757	758 2758	759 2759	760 2760	761 2761	762 2762	763 2763	764 2764	765 2765	766 2766	767 2767	768 2768	769 2769	770 2770
Capacity, Steam, Sq Ft.	2300	2690	3250	3630	4060	4550	5250	5950	6470	7000	8280	9610	10850	12110	14300	16380	18660	20750	22520	25530	28780	33070
Heating Surface, Sq.Ft	164	192	232	262	290	325	375	425	462	500	591	686	775	865	1025	1170	1333	1482	1608	1824	2056	2362
Area of Grate.....Sq Ft.	9.1	10.3	11.0	11.6	12.4	13.9	15.5	18.0	19.7	21.5	22.4	24.3	24.7	26.9	27.6	30.1	32.9	35.6	36.0	38.9	42.1	45.5
Diameter of Stack...In.	18	20	20	20	22	22	22	24	24	26	26	28	30	30	32	32	34	34	38	38	40	40
Min. Ht. of Stack...Ft.	45	50	50	55	55	55	60	55	60	65	65	65	70	70	70	70	80	90	90	100	100	100
Dia. Stack, 2 Boilers.In	26	28	28	28	31	31	31	34	34	36	36	40	42	42	46	46	48	48	52	54	54	54
Min. Height of Stack, Two Boilers.....Ft.	55	60	60	65	65	65	70	65	70	75	75	75	80	80	80	80	90	100	100	100	110	110
Size Steam Opening In	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	10	10	10	10
Size of Ret. Opening In	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	8	6	6	6	6	6	6
Size of Safety Valve Opening ..... In	2	2	2	2	2	2	2½	2½	3	3	3	3½	3½	3½	3½	4	4	2-2½	2-2½	2-3	2-3	2-3
A—Width of Boiler, In.	36	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72	78	78	84	84
B—Lgth. Boiler Ft. In	4-2	4-8	5-8	6-4	5-10½	6-6½	7-6	7-2½	7-10	8-5	7-5½	8-7	8-0½	8-11	9-7	10-10	9-10½	10-11	10-10	12-2½	10-11	12-5
C—Overall Length of Boiler .....Ft In	5-10	6-4	7-4	8-0	7-10½	8-6½	9-6	9-4½	10-0	10-7	9-8½	10-10	10-4½	11-3	11-11	13-2	12-8½	13-9	13-8	15-0½	13-9	15-3
D—Overall Ht Boiler In	77½	77½	77½	77½	83½	83½	83½	86½	86½	86½	99	99	106½	108½	112	112	118	118	122	122	135	135
E—Ht. Ash-pit Base In	14	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	17	17	17	21	21
F—Width of Grates and Ash-pit.....In.	30	30	30	30	36	36	36	42	42	42	47½	47½	52½	52½	58½	58½	65	65	70	70	76	76
G—Lgth. of Grates In	43	49	56	56	50	56	62	62	68	74	68	74	68	74	68	74	74	60	74	80	80	86
H—Height of Front Smokebox .....In	34	34	34	34	34	34	34	35	35	35	42	42	48	48	48	48	51	51	52	52	61	61
—Top Fr. Smoke-box to Top of Boiler..In.	10	10	10	10	13	13	13	14	14	14	16	16	16	16	18	18	17	17	19	19	21	21
J—Depth of Front Smokebox .....In	9	9	9	9	10	10	10	11	11	11	12	12	12	12	12	12	14	14	14	14	14	14
K—Depth of Rear Smokebox.....In	11	11	11	11	14	14	14	15	15	15	15	15	16	16	16	16	20	20	20	20	20	20
L—Ht. Rear Smkbx In	26	26	26	26	29	29	29	31½	31½	31½	35	35	36	36	39	39	43	43	45½	45½	49½	49½
M—Dia.Smoke Outl.In	20	22	22	22	24	24	24	26	26	26	28	28	32	32	34	34	36	36	40	40	42	42
N—Height Smoke Outlet above Floor ..In	64½	64½	64½	64½	69	69	69	70	70	70	81½	81½	90½	90½	93	93	96	96	99	99	110	110
O—Ht. WaterCol ..In.	65½	65½	65½	65½	68	68	68	70	70	70	81	81	90	90	92	92	97½	97½	99½	99½	110½	110½
P—Ht. Water Line..In	69	69	69	69	72	72	72	73	73	73	85	85	94	94	95	95	101	101	103	103	114	114
Q—Ht. Steam Sup..In	79½	79½	79½	79½	85½	85½	85½	88½	88½	88½	101	101	110½	110½	114	114	120	120	124	124	137	137
R—Ht. of Return...In	18	18	18	18	18	18	18	19	19	19	19	19	22	22	22	22	22	22	22	22	26	26
S—Location of Steam Supply .....In.	10½	14	14	16	14	16	18	18	18	18	18	21	18	21	18	21	21	21	21	21	21	24
T—1st Safety Valve In	8½	10	10	10	10	10	11	14	14	14	13	14	13	14	13	14	14	14	14	14	14	15
U—2nd Safety Valve In																		10	10	11	11	12
V—Surface Blow-off In	12	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24	24	24	24
W—Width of Base In	41½	41½	41½	41½	47½	47½	47½	53½	53½	53½	59½	59½	66	66	72	72	78	78	84	84	90½	90½
X—Width of Found In	46	46	46	46	52	52	52	58	58	58	63½	63½	68½	68½	74½	74½	80	80	86	86	92	92
Y—Lgth. of Found ..In	53½	59½	71½	80	74½	82½	94	90	97½	104½	93½	107	100½	111	119	134	122½	135	134	150½	135	153
Z—Lgth. of Ash-pit .In	37½	43½	51	51	45	51	57	57	63	69	63	69	64	70	64	70	70	76½	70	76½	76½	82½
Outside Surface to Cover. Sq Ft	62	68	80	89	93	102	115	119	128	136	145	165	172	187	210	234	231	252	265	294	294	328
Approx. Weight Pounds	4300	4700	5200	5500	6000	6500	7100	7500	7900	8300	10600	11700	12900	14000	16300	17900	19800	21300	22600	24700	28400	31300
No of Oil Burn Boiler.	1749	1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760	1761	1762	1763	1764	1765	1766	1767	1768	1769	1770
Capacity Steam Sq.Ft	2790	3260	3940	4450	4930	5520	6370	7220	7850	8500	10040	11670	13180	14700	17420	19880	22650	25200	27300	31000	34900	40150
Furnace Volume Cu Ft	24.0	26.8	31.1	35.7	44.0	47.6	52.1	63.5	69.1	74.5	86.7	96.0	113.1	124.8	151.1	168.8	185.9	201.0	230.6	256.0	275.7	309.6
Approx. Weight ...lbs	3600	3800	4200	4600	5000	5400	5900	6300	6700	7100	8800	9600	10600	11500	13700	15100	16600	17800	19200	21100	24300	27000

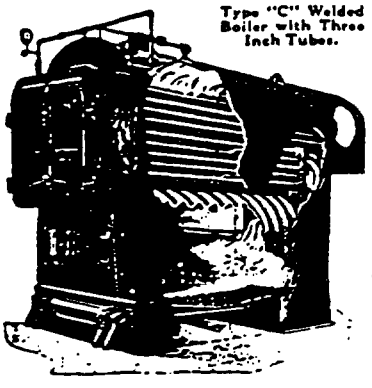
Rated Capacity for Water Boiler is 60% Greater than Steam. Manhole on Nos 759, 2759, 1759 and larger.

1932–1954

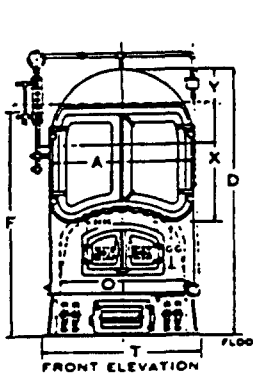
KEWANEE Type "C" Welded Boiler —For Coal

This Type "C" is a welded compact boiler. Its corrugated crown sheet has much greater strength and adds more heating surface where most effective use may be made of intense heat for quick steaming.

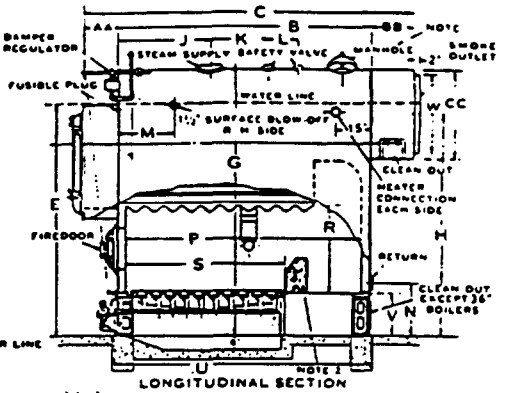
Boilers 774-790 with smokeless arch and drum are for use with high-volatile bituminous coal; Nos. 2773-2790 without arch are direct draft for use with smokeless fuels such as low-volatile bituminous coal, coke or anthracite.



Type "C" Welded Boiler with Three Inch Tubes.



FRONT ELEVATION



LONGITUDINAL SECTION

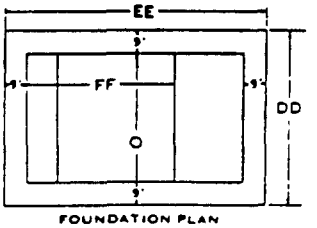
Equipment—Steel base fully assembled with heavy rocking (or dumping) grates and cast iron ash pit front, four cast iron corner posts, heavy steel flanged panels with rear cleanout opening except 36" boilers; refractory bridgewall and header wall; insulated flue door; firedoor with liner; smokebox soot cleanout doors. Type "C" may be fitted at factory with Kewanee indirect hot water heating coils at extra cost.

Firing Tools—Hoe, poker, slice bar and flue cleaner and handle.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock; draft regulator; water column with water gauge, glass and cocks.

Note 1. Manhole furnished on boilers 782, 2782, 1782, 0782 and larger.

Note 2. Bridgewall omitted on boilers 2773; 774, 2774; 775, 2775.



FOUNDATION PLAN

Footings may be required under base corner posts depending on soil conditions.

All front smokeboxes have double doors.

Type "C" conforms to the A.S.M.E. boiler construction code for 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation.

Specifications and Setting Measurements

Boiler Number ..... With Arch / Without Arch	2773	774 / 2774	775 / 2775	776 / 2776	777 / 2777	778 / 2778	779 / 2779	780 / 2780	781 / 2781	782 / 2782	783 / 2783	784 / 2784	785 / 2785	786 / 2786	787 / 2787	788 / 2788	789 / 2789	790 / 2790
Rating—Steam Radiation.....Sq. Ft.	2700	2600	3000	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation.....Sq. Ft.	3520	4160	4800	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu per Hour .....1000's	528	624	720	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	158	186	215	250	286	322	358	429	500	606	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.).....Sq. Ft.	8.9	9.7	10.5	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter.....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
Stack Diameter .....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height .....Ft.	45	50	50	55	55	55	60	60	65	65	70	70	75	75	80	95	95	110
Breeching Diameter, Two Boilers .In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers .....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers .....Ft.	55	60	60	65	65	65	70	70	75	75	80	80	85	85	90	105	105	120
Steam Supply Size .....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size .....In.	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Water Heater Connection Size .In.	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Valve Size .....In.	1¼	2	2	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight— 700 Series ....Lb.	...	3900	4400	5000	5500	6000	6500	7500	8400	9700	11000	12900	14900	16600	18400	22000	25200	28400
2700 Series Lb	3400	3800	4300	4800	5300	5800	6300	7200	8100	9400	10600	12500	14400	16100	17900	21200	24400	27500
A—Boiler Width .....In.	36	36	36	36	42	42	42	48	48	54	54	60	66	72	72	78	84	84
B—Boiler Length .....Ft. In.	4-2	4-8	5-2	6-0½	5-10½	6-6½	7-2	7-2½	8-5	7-8	8-11½	9-2½	9-11½	9-3½	10-6½	11-11½	11-4½	13-1½
C—Boiler Length Overall ....Ft. In.	5-10½	6-4½	6-10½	7-9	7-10½	8-6½	9-2	9-4½	10-7	9-11½	11-2½	11-6½	12-3½	12-1½	13-4½	14-9½	14-2½	15-11½
D—Boiler Height Overall.....In.	77½	77½	77½	77½	83½	83½	83½	86½	86½	99	99	108½	112	118	118	122	135	135
E—Water Line .....In.	69	69	69	69	72	72	72	73	73	85	85	94	95	101	101	103	114	114
F—Water Column Height .....In.	65½	65½	65½	65½	68	68	68	70	70	81	81	90	92	97½	97½	99½	110½	110½
G—Steam Supply Height.....In.	79½	79½	79½	79½	85½	85½	85½	88½	88½	101	101	110½	114	120	120	124	135	135
H—Smoke Outlet Hgt above Floor In	64½	64½	64½	64½	69	69	69	70	70	81½	81½	90½	93	96	96	99	110	110
J—Steam Supply Location .....In.	10½	14	14	16	14	16	18	18	18	18	21	21	21	21	21	21	21	24
K—Safety Valve Location.....In.	8½	10	10	10	10	10	11	14	14	13	14	14	14	14	14	14	14	15
L—Second Safety Valve Location .In.	...	...	...	...	...	...	...	...	...	...	...	12	15	12	10	11	11	12
M—Surface Blow-Off Location ...In.	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24
N—Return Height .....In.	18	18	18	18	18	18	18	18	18	18	18	21	21	21	21	22	26	26
O—Firebox and Ash Pit Width ...In.	30	30	30	30	36	36	36	42	42	47½	47½	52½	58½	65	65	70	76	76
P—Firebox Length .....In.	43½	49½	55½	66	64	72	79½	80	94½	85½	101	103	112	104	119	136	128½	149½
R—Firebox Height.....In.	26	26	26	26	29	29	29	30	30	34	34	36	38	40	40	42	42	42
S—Grate Length .....In.	43	49	55	55	50	56	62	62	68	68	74	74	74	74	80	80	80	86
T—Base Width .....In.	41½	41½	41½	41½	47½	47½	47½	53½	53½	59½	59½	66	72	78	78	84	90½	90½
U—Base Length .....In.	52	58	64	74½	72½	80½	88	88½	103	94	109½	113	122	114	129	146	139	160
V—Base Height .....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	21	21
W—Smoke Outlet Diameter .....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
X—Front Smokebox Height .....In.	34½	34½	34	34	34	34	34	35	35	42	42	48	48	51	51	52	61	61
Y—Fr. Smkbx. Top to Boiler Top .In.	10	10	10	10	13	13	13	14	14	16	16	16	18	17	17	19	21	21
AA—Front Smokebox Depth .....In.	9	9	9	9	10	10	10	11	11	12	12	12	12	14	14	14	14	14
BB—Rear Smokebox Depth .....In.	11½	11½	11½	11½	14	14	14	15	15	15	15	16	16	20	20	20	20	20
CC—Rear Smokebox Height .....In.	26	26	26	26	29	29	29	31½	31½	35	35	36	39	43	43	45½	49½	49½
DD—Foundation Width .....In.	48	48	48	48	54	54	54	60	60	65½	65½	78½	76½	83	83	88	94	94
EE—Foundation Length .....In.	53½	59½	65½	76	74	82	90	90	104½	96	111	114½	123½	115½	130½	147½	140½	161½
FF—Length of Ash Pit .....In.	35½	41½	47	51	45	51	57	57	63	63	69	70	70	70	76½	76½	76½	82½
*Outside Surface to Cover Sq. Ft.	63	69	76	87	94	103	112	120	137	150	172	193	220	223	246	292	307	348
CC a HH—Fire Door Opening .....In.	One 11x16				One 12x20			One 15x23		One 16x30		One 16x36				Two 15x23		
Fire Door Style	Single Frame and Door									Single Frame and Double Doors						R&L Single Fr & Dr		

*Front smokebox and front head below smokebox NOT included

Kewanee Catalog No. 80a

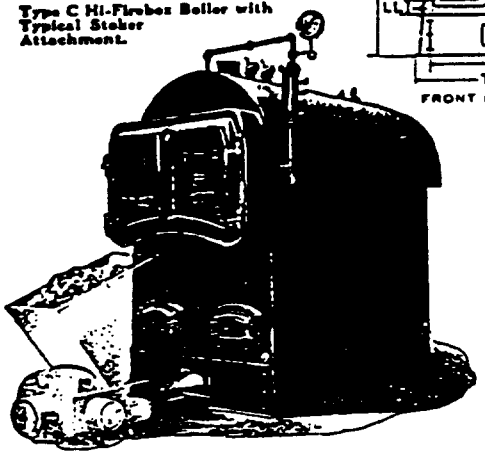
1935-1959

KEWANEE Type "C" Hi-Firebox Welded—7L70 Series

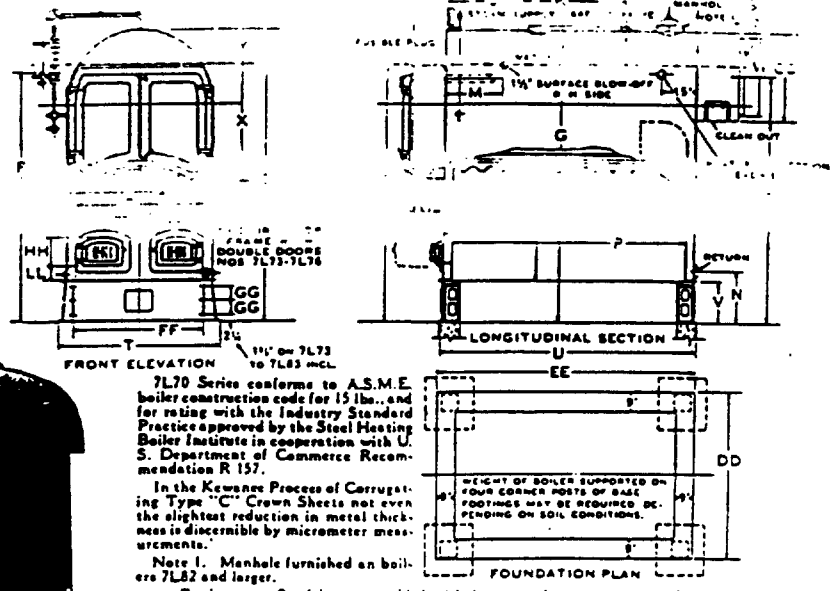
...r Oil, Gas or Stoker

The Kewanee Hi-Firebox boiler is built exactly right for stokers. This 7L70 series has long water legs providing the necessary height in firebox to comply with S.H.B.I. code for stoker firing.

Type "C" high operating ef... sures lifetime econon... ...an Oil, Gas or Stoker equip... ...70 Series Hi-Firebox is built with grates for hand-fired coal.



Type C Hi-Firebox Boiler with Typical Stoker Attachment.



7L70 Series conforms to A.S.M.E. boiler construction code for 15 lbs., and for rating with the Industry Standard Practice approved by the Steel Heating Boiler Institute in cooperation with U. S. Department of Commerce Recommendation R 157.

In the Kewanee Process of Corrugating Type "C" Crown Sheets not even the slightest reduction in metal thickness is discernible by micrometer measurements.

Note 1. Manhole furnished on boilers 7L82 and larger.

Equipment: Steel base assembled with four cast iron corner posts, heavy steel flanged panels have 8½ x 11½ front and rear opening; insulated flue door; and flue cleaner and handle. 7L70 "C" may be fitted at factory with Kewanee Hot Water Heating Coils at extra cost.

Trimmings for steam only: Safety valve, steam gauge with syphon and cock; water column with water gauge, glass and cocks. All front smokeboxes have double doors.

Note 2. Average firebox height, computed by dividing the firebox volume by the plan area, complies with S.H.B.I. code when stoker dead plates are located at top of mud ring.

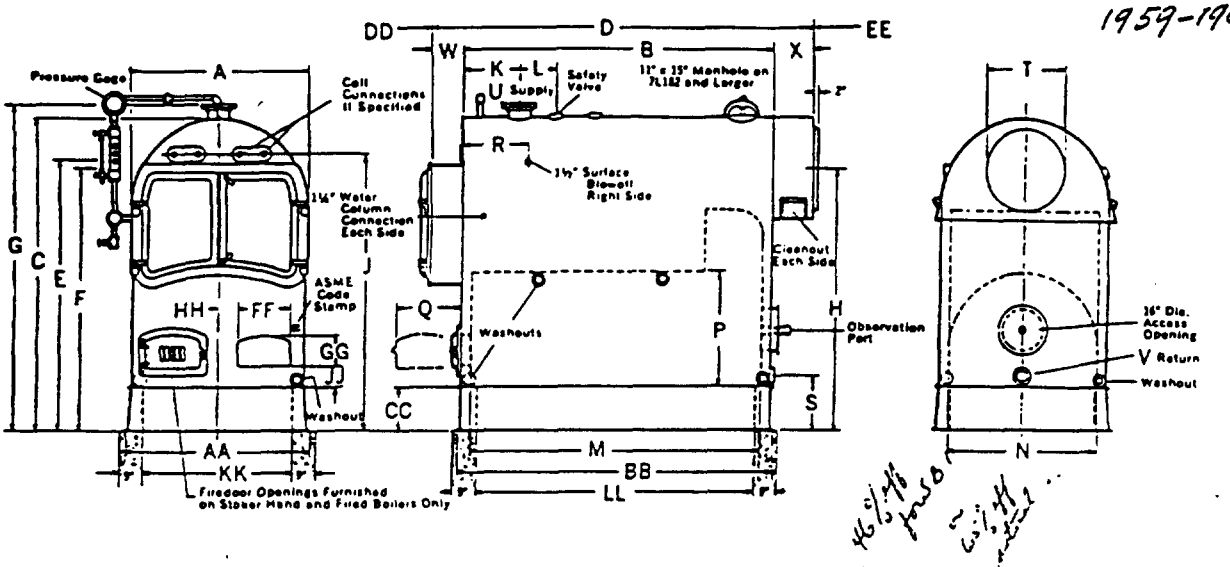
Specifications and Setting Measurements

Boiler Number	7L73	7L74	7L75	7L76	7L77	7L78	7L79	7L80	7L81	7L82	7L83	7L84	7L85	7L86	7L87	7L88	7L89	7L90
Rating—Steam Radiation....Sq. Ft.	2680	3160	3650	4250	4860	5470	6060	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation....Sq. Ft.	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour....1000's	643	758	876	1020	1166	1313	1459	1750	2040	2479	(2916)	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq. Ft.	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	19.2	22.6	26.1	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Average Firebox Height, See Note 2 In.	33.9	33.0	32.3	31.4	34.5	34.0	34.0	37.8	37.3	42.7	42.4	46.5	48.5	52.4	54.7	58.2	63.5	66.8
Firebox Vol. above Mud Ring Cu. Ft.	25.5	28.3	31.1	36.1	45.8	50.8	56.0	73.5	85.2	100.5	117.4	145.4	184.5	203.7	243.4	321.6	357.2	437.0
Plan Area....Sq. Ft.	9.1	10.3	11.5	13.8	15.9	17.9	19.8	23.4	27.5	28.2	33.3	37.5	45.7	46.7	53.4	66.3	67.5	78.5
Breeching Diameter....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
Stack Diameter....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height....Ft.	35	35	40	45	40	45	50	50	60	55	65	65	70	65	75	90	80	100
Breeching Diameter, Two Boilers...In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers....Ft.	45	45	50	55	50	55	60	60	70	65	75	75	80	75	85	100	90	110
Steam Supply Size....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size....In.	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Water Heater Connection Size....In.	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Valve Size....In.	1½	2	2	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight....Lb.	3100	3500	3900	4400	4900	5400	5800	6700	7600	8800	10000	11800	13600	15300	17000	20100	23200	26100
A—Boiler Width....In.	36	36	36	36	42	42	42	48	48	54	54	60	66	72	72	78	84	84
B—Boiler Length....Ft. In.	4-2	4-8	5-2	6-0½	5-10½	6-6½	7-2	7-2½	8-5	7-8	8-11½	9-2½	9-11½	9-3½	10-6½	11-1½	11-4½	13-1½
C—Boiler Length Overall....Ft. In.	5-10½	6-4½	6-10½	7-9	7-10½	8-6½	9-2	9-4½	10-7	9-11	11-2½	11-6½	12-3½	12-1½	13-4½	14-9½	14-2½	15-11
D—Boiler Height Overall....In.	82½	82½	82½	82½	88½	88½	88½	94½	94½	108	108	119½	123	131	134	140	157	161
E—Water Line Height....In.	74	74	74	74	77	77	77	81	81	94	94	105	106	114	117	121	136	140
F—Water Column Height....In.	70½	70½	70½	70½	73	73	73	78	78	90	90	101	103	110½	113½	117½	132½	136½
G—Steam Supply Height....In.	84½	84½	84½	84½	90½	90½	90½	96½	96½	110	110	121½	125	133	136	143	156	163
H—Smoke Outlet Hgt. above Floor. In.	69½	69½	69½	69½	74	74	74	78	78	90½	90½	101½	104	109	112	117	132	136
J—Steam Supply Location....In.	10½	14	14	16	14	16	18	18	18	18	21	21	21	21	21	21	21	24
K—Safety Valve Location....In.	8½	10	10	10	10	10	11	14	14	13	14	14	14	14	14	14	14	15
L—Second Safety Valve Location...In.												12	15	12	10	11	11	12
M—Surface Blow-Off Location....In.	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24
N—Return Height....In.	18	18	18	18	18	18	18	18	18	18	18	21	21	21	21	22	26	26
O—Firebox Width....In.	30	30	30	30	36	36	36	42	42	47½	47½	52½	58½	65	65	70	76	76
P—Firebox Length....In.	43½	49½	55½	66	64	72	79½	80	94½	85½	101	103	112	104	119	136	128½	149½
R—Firebox Height....In.	31	31	31	31	34	34	34	38	38	43	43	47	49	53	56	60	64	68
T—Base Width....In.	41½	41½	41½	41½	47½	47½	47½	53½	53½	59½	59½	66	72	78	78	84	90½	90½
U—Base Length....In.	52	58	64	74½	72½	80½	88	88½	103	94	109½	113	122	114	129	146	139	160
V—Base Height....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	21	21
W—Smoke Outlet Diameter....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
X—Front Smokebox Height....In.	34	34	34	34	34	34	34	35	35	42	42	48	48	51	51	52	61	61
Y—Fr. Smkbox. Top to Boiler Top...In.	10	10	10	10	13	13	13	14	14	16	16	16	18	17	17	19	21	21
AA—Front Smokebox Depth....In.	9	9	9	9	10	10	10	11	11	12	12	12	12	14	14	14	14	14
BB—Rear Smokebox Depth....In.	11½	11½	11½	11½	14	14	14	15	15	15	15	16	16	20	20	20	20	20
CC—Rear Smokebox Height....In.	26	26	26	26	29	29	29	31½	31½	35	35	36	39	43	43	45½	49½	49½
DD—Foundation Width....In.	48	48	48	48	54	54	54	60	60	65½	65½	70½	76½	83	83	88	94	94
EE—Foundation Length....In.	53½	59½	65½	76	74	82	90	90	104½	96	111	114½	123½	115½	130½	147½	140½	161½
FF—Bolt Centers in Front Plate...In.	31½	31½	31½	31½	37½	37½	37½	43½	43½	49½	49½	55½	61½	67½	67½	73½	79½	79½
GG—Bolt Centers in Front Plate...In.	4½	4½	4½	4½	4½	4½	4½	4½	4½	4½	4½	5½	5½	5½	5½	5½	7½	7½
HH—Firedoor Height....In.	13½	13½	13½	13½	10	10	10	11	11	11	11	12	12	12	12	15	15	15
JJ—Firedoor Width....In.	27½	27½	27½	27½	15	15	15	16	16	16	16	20	20	20	20	23	23	23
KK—Space Between Firedoors...In.					5	5	5	7	7	12	12	9	15	20	20	20	26	26
LL—Hgt. Doors from Bottom Bl'r...In.	9½	9½	9½	9½	8	8	8	8	8	8	8	8	8	8	8	10	10	10
MM—Open Firedoor to Boiler...In.	20	20	20	20	20½	20½	20½	22½	22½	22½	22½	26½	26½	26½	26½	29½	29½	29½
*Outside Surface to Cover....Sq. Ft.	79	85	93	104	116	125	134	152	170	192	215	245	277	291	327	385	415	463

*Front smokebox and front head below smokebox IS included.

24306

1959-1961



Ratings – Mechanically Fired – Oil, Gas or Stoker

Boiler Number		7L178	7L179	7L180	7L181	7L182	7L183	7L184	7L185	7L186	7L187	7L188	7L189	7L190	7L191	7L192	7L193
SBI Rating—Steam	Sq. Ft.	5830	6445	7770	9000	10940	12970	16070	19300	22500	25720	32150	38570	45000	51430	57850	64280
—Water	Sq. Ft.	9285	10300	12350	14400	17500	20590	25710	30880	36000	41150	51440	61710	72000	82290	92560	102850
—MBtuh		1392	1546	1853	2160	2626	3089	3857	4632	5400	6173	7716	9257	10800	12346	13880	15430
—Steam per hour—212° F.	Lb.	1430	1590	1900	2220	2700	3170	3960	4760	5540	6340	7920	9510	11090	12670	14260	15840
SBI Net Rating—Steam	Sq. Ft.	5070	5640	6760	7880	9580	11260	14060	16880	19690	22510	28130	33750	39370	45000	50620	56240
—Water	Sq. Ft.	8110	9020	10820	12610	15330	18020	22500	27010	31500	36020	45010	54000	62990	72000	80990	89980
—MBtuh		1217	1353	1622	1890	2298	2703	3376	4052	4725	5402	6751	8100	9450	10800	12150	13500
Firing Rate—Oil	Gph	16	18	22	26	31	37	46	54	64	73	91	110	127	146	164	182
—Gas	MBtuh	2460	2740	3280	3830	4650	5460	6840	8200	9560	10970	13670	16400	19120	21900	24600	27300
—Stoker	Lb per hr.	218	244	291	340	412	485	607	729	850	972	1215	1457	1700	1943	2186	2429
Heating Surface (SBI min)	Sq. Ft.	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500	2857	3214	3571
Furnace Volume (SBI min)	Cu. Ft.	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6	346.9	390.3	433.6
Furnace Height (SBI min)	In.	31½	31½	32½	34	35½	37½	40½	43	46	48½	54½	60½	66	71½	77½	83½
Firebox Vol. Above Bot. of Water Leg	Cu. Ft.	49.6	54.5	66.3	76.1	89.7	103.5	127.8	151.5	191.1	215.3	284.6	361.0	435.0	477.6	572.3	662.1
Safety Valve Capacity	Lb. steam per hr.	1969	2168	2625	3060	3718	4374	5464	6559	7650	8745	10929	13114	15300	17485	19671	21855

Firing Rates calculated to develop boiler output of 141.5% of SBI Rating.
Based on 150,000 Btu. Oil, 12,000 Btu. Coal.

Dimensions and Data – Inches

Boiler Number	7L178	7L179	7L180	7L181	7L182	7L183	7L184	7L185	7L186	7L187	7L188	7L189	7L190	7L191	7L192	7L193
Shell Diameter—Inside	42	42	48	48	54	54	60	66	72	72	78	84	84	90	90	96
A —Boiler Width Overall	44	44	50	50	56	56	62	68	74	74	80	86	86	94	94	100
B —Boiler Length	80	82½	87	100½	92½	107½	112	119½	114	129½	145½	134	155	153½	170½	173
C —Boiler Height	87	87	91½	91½	103	103	113½	119	128½	128½	136	161½	161½	172	178	189½
D —Boiler Length Overall	104	112½	113	126½	119½	134½	140	147½	148	163½	179½	168	189	183½	210½	213
E —Water Line Height	73½	73½	77	77	86½	86½	97	100	109½	109½	115½	138½	138½	149½	155	164½
F —Water Column Height	71½	71½	75	75	84½	84½	95	98	107½	107½	113½	136½	136½	147½	153	162½
G —Steam Supply Height	92	92	96½	96½	108	108	118½	123½	133	133	141½	167	167	178	183½	195
H —Smoke Outlet Height	72	72	75½	75½	85	85	94½	98	106½	106½	113½	136	136	145	150½	160½
J —Coil Connection Height	76½	76½	80	80	90	90	100½	103½	113	113	118½	142	142	155½	158½	168
K —Steam Supply	16	16	18	18	18	20	21	21	21	21	21	21	24	24	24	24
†L —Safety Valve	12	12	14	14	14	14	14	14	16	16	16	16	16	20	24	27
M —Firebox Length	73½	82	80½	94	86	101	104½	112	106½	122	138	126	147	144½	161½	163
N —Firebox Width	36½	36½	42½	42½	48½	48½	53½	59½	65	65	71	77	77	82	82	87
P —Firebox Height	32	32	34	34	37½	37½	40½	43	49	49	54½	66	66	72	77½	83½
Q —Opened Firedoor to Boiler	20	20	22½	22½	22½	22½	26½	26½	29½	29½	29½	29½	29½	29½	29½	29½
R —Surface Blowoff	12	12	12	12	18	24	24	24	24	24	24	24	24	30	30	30
S —Return Height	18	18	18	18	18	18	21	21	21	21	23	27	27	27	27	27
T —Smoke Outlet Diameter	22	22	24	24	28	28	30	31	35	35	39	41	43	46	48	50
*U —Steam Supply Size	6	6	8	8	8	8	8	8	8	8	8	10	10	10	12	12
V —Return Size	4	4	4	4	4	4	4	4	4	4	4	6*	6*	6*	6*	6*
W —Smokebox Depth—Front	10	10	11	11	12	12	12	12	14	14	14	14	14	15	16	16
X — —Rear	14	14	15	15	15	15	16	16	20	20	20	20	20	24	24	24
AA—Base—Width	48	48	54	54	60	60	66½	73	79	79	84½	91½	91½	97½	97½	103½
BB— —Length	83½	92	90½	104	96	111	115½	123	137½	133	149	137½	158½	157	174	176½
CC— —Height	14	14	14	14	14	14	17	17	17	17	17	21	21	21	21	21
DD—Tube Replacement Space—Front	71	78½	77	90½	81½	96½	101	108½	101	116½	132½	121	142	138½	155½	158
EE— —Rear	67	75½	73	86½	78½	93½	97	104½	95	110½	126½	115	136	134½	147½	150
FF&GG—Firedoor opening sh. blr. width x height	One 27½" x 13½"		Two 16" x 11"				Two 20" x 12"		Two 23" x 15"							
HH—Centerline blr. to firedoor opening			3½	3½	6	6	4½	7½	6½	6½	10	13	13	12	12	14
JJ —Height Doors from Bot. of Boiler	8½	8½	8	8	8	8	8	8	8	8	10	10	10	11	11	11
KK—Foundation—Width	36½	36½	42½	42½	48½	48½	53½	59½	65	65	71	77	77	82	82	87
LL— —Length	67	75½	74	87½	79½	94½	99	106½	101	116½	132½	123	142	145½	157½	160
Breeching Dia. One Boiler	22	22	24	24	28	28	30	31	35	35	39	41	43	44	48	50
Stack Diameter	19	20	21	22	24	26	28	29	31	33	36	38	40	41	44	46
—Height Ft.	45	50	50	60	55	65	65	70	65	75	90	80	100	130	110	110
Breeching Dia. Two Boilers	27	28	30	31	34	36	40	41	44	47	50	54	56	62	63	66
Stack—Diameter	25	26	28	29	32	34	37	38	41	44	47	50	52	54	59	62
—Height Ft.	55	60	60	70	65	75	75	80	75	85	100	90	110	140	120	120
**Outside Surface to Cover Sq. Ft.	122	132	145	162	180	202	231	265	285	313	375	422	469	528	571	625
Approx. Weight Lbs	5400	5800	6700	7600	8800	10000	11800	13600	15300	17000	20100	23200	26100	33400	37300	42000

*150 Lb. American Standard Flange.
**Includes Front Head and Smokebox.
†One or more valves furnished depending on required capacity.

Tubes: Size, Length and Number
Kewanee Firebox Boilers —

Portable and Brickset
Riveted and Welded
Down-Draft and Up-Draft

Kewanee Firebox Boiler Riveted Single-Pass Up-Draft Brickset or Portable Type K

Boiler	TUBES No. Dia. Length
0	12–3" x 4' 6 "
1	17–3" x 4' 1 "
2	17–3" x 4' 8 "
3	17–3" x 5' 2 "
4	28–3" x 4' 8 "
5	28–3" x 5' 8 "
6	28–3" x 6' 8 "
8	39–3" x 6' 2 "
9	39–3" x 7' 2 "
10	46–3" x 6' 8 "
11	46–3" x 7' 8 "
12	46–3" x 8' 8 "
13	39–4" x 9' 1 "
14	39–4" x 11' 1 "
15	48–4" x 10' 1⅛"
16	48–4" x 12' 1⅛"
17	62–4" x 10' 7⅛"
18	62–4" x 12' 1⅛"
19	82–4" x 10' 1⅛"
20	82–4" x 11' 7⅛"

Not for Boilers Built before 1918.

Kewanee Firebox Boiler Riveted Single-Pass Smokeless Down-Draft Brickset or Portable Type K

Boiler	TUBES No. Dia. Length
104	28–3" x 4' 8 "
105	28–3" x 5' 8 "
106	28–3" x 6' 8 "
107	39–3" x 5' 2 "
108	39–3" x 6' 2 "
109	39–3" x 7' 2 "
110	46–3" x 6' 8 "
111	46–3" x 7' 8 "
112	46–3" x 8' 8 "
113	39–4" x 9' 1 "
114	39–4" x 11' 1 "
115	48–4" x 10' 1⅛"
116	48–4" x 12' 1⅛"
117	62–4" x 10' 7⅛"
118	62–4" x 12' 1⅛"
119	82–4" x 10' 1⅛"
120	82–4" x 11' 7⅛"

Not for Boilers Built before 1918.

Kewanee Firebox Boiler Riveted Double-Pass Smokeless Down-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
307	29–3" x 2' 9 "	28–3" x 7' 6 "
308	29–3" x 3' 7 "	28–3" x 8'10⅛"
309	29–3" x 4' 1 "	28–3" x 9'10⅛"
310	38–3" x 3' 1 "	36–3" x 9' 4¼"
311	38–3" x 3' 7 "	36–3" x 10' 4¼"
312	38–3" x 4' 1 "	36–3" x 11' 4¼"
313	28–4" x 4' 7⅛"	28–4" x 11' 4⅜"
314	28–4" x 5' 1⅛"	28–4" x 12' 4⅜"
315	28–4" x 5'10⅛"	28–4" x 13' 8 "
316	28–4" x 6' 4 "	28–4" x 14' 8 "
317	38–4" x 6' 2⅛"	34–4" x 14' 0 "
318	38–4" x 7' 8 "	34–4" x 16' 0 "
319	46–4" x 6' 4⅛"	46–4" x 14' 8 "
320	46–4" x 7' 2⅛"	46–4" x 16' 0 "
321	55–4" x 7' 1⅛"	50–4" x 15'11 "
322	55–4" x 7' 7 "	50–4" x 16'11 "
323	68–4" x 8' 2 "	66–4" x 18' 0 "
324	68–4" x 11' 8 "	66–4" x 22' 0 "

Not for Boilers Built before 1918.

Kewanee Firebox Boiler Riveted Double-Pass Up-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
407	29–3" x 3' 7 "	28–3" x 7' 0⅛"
408	29–3" x 4' 0 "	28–3" x 7'11 "
409	29–3" x 5' 1 "	28–3" x 9' 6⅛"
410	38–3" x 4' 6 "	36–3" x 8' 5¼"
411	38–3" x 5' 1 "	36–3" x 9' 6¼"
412	38–3" x 5' 7 "	36–3" x 10' 6¼"
413	28–4" x 5'11⅛"	28–4" x 10'10⅜"
414	28–4" x 6' 7⅛"	28–4" x 12' 0⅜"
415	28–4" x 7' 9⅛"	28–4" x 12' 9 "
416	28–4" x 9' 1⅛"	28–4" x 14' 7 "
417	38–4" x 8' 6 "	34–4" x 14' 0 "
418	38–4" x 9' 7 "	34–4" x 15' 7 "
419	46–4" x 8' 0⅛"	46–4" x 14' 0 "
420	46–4" x 9' 1⅛"	46–4" x 15' 7 "
421	55–4" x 9' 6⅛"	50–4" x 16' 0 "
422	55–4" x 11' 0⅛"	50–4" x 18' 0 "
423	68–4" x 11' 0 "	66–4" x 18' 0 "
424	68–4" x 12' 6 "	66–4" x 20' 0 "

Not for Boilers Built before 1918.

Kewanee Firebox Boiler Riveted Double-Pass "500" Series Up-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
524	38–3" x 6' 6⅛"	36–3" x 12' 0 "
526	28–4" x 5' 5⅛"	52–3" x 10'10⅜"
528	28–4" x 6' 1⅛"	52–3" x 12' 0⅜"
530	34–4" x 7' 3⅛"	52–3" x 12' 9 "
532	34–4" x 8' 1⅛"	52–3" x 14' 7 "
534	43–4" x 7' 6⅛"	66–3" x 14' 0 "
536	43–4" x 8' 7⅛"	66–3" x 15' 7 "
538	49–4" x 7' 0⅛"	82–3" x 14' 0 "
540	49–4" x 8' 1⅛"	82–3" x 15' 7 "
542	55–4" x 8' 6⅛"	100–3" x 15' 6 "
544	55–4" x 9'11⅛"	100–3" x 17' 5 "

Kewanee Firebox Boiler Riveted Double-Pass "800" Series Up-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
832	46–3" x 3'10¾"	46–3" x 9'10 "
833	46–3" x 4' 4¾"	46–3" x 10'10 "
834	58–3" x 3' 9¾"	58–3" x 9' 2⅝"
835	58–3" x 4' 6⅛"	58–3" x 10' 5⅝"
836	66–3" x 5' 0 "	66–3" x 11' 0 "
837	66–3" x 5' 9 "	66–3" x 12' 3 "
838	83–3" x 4' 9 "	83–3" x 11' 3 "
839	83–3" x 5' 6 "	83–3" x 12' 6 "
840	104–3" x 5' 0 "	103–3" x 12' 0 "
841	104–3" x 6' 3 "	103–3" x 13' 9 "
842	121–3" x 7' 3 "	120–3" x 14' 9 "
843	121–3" x 8' 8 "	120–3" x 16' 8 "

"900" Series Down-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
932	46–3" x 3' 3¾"	46–3" x 10' 1 "
933	46–3" x 3' 8¼"	46–3" x 10'11½"
934	58–3" x 2'10⅜"	58–3" x 10' 1⅝"
935	58–3" x 3' 1⅝"	58–3" x 10'10⅝"
936	66–3" x 3' 7⅛"	66–3" x 11' 4⅞"
937	66–3" x 4'10⅛"	66–3" x 13' 1⅞"
938	83–3" x 3'10 "	83–3" x 12' 2 "
939	83–3" x 4' 2⅛"	83–3" x 13' 0 "
940	104–3" x 3' 7 "	103–3" x 12' 4⅞"
941	104–3" x 3' 8⅛"	103–3" x 13' 0 "
942	121–3" x 4'10⅛"	120–3" x 14' 8 "
943	121–3" x 7' 5¾"	120–3" x 17' 9⅝"

NOTE: WHEN ORDERING TUBES GIVE DATE OF BOILER OR SERIES NUMBER, AND CHECK ACTUAL LENGTHS AND NUMBER IN EACH TUBE NEST.

LENGTHS IN THESE TABLES INCLUDE 1 IN. FOR ROLLING AND BEADING.

Kewanee Boiler Corp. assumes no responsibility for tubes ordered too long or too short.

Kewanee Firebox Boiler
Weld + Rivet Double-Pass
"5000" Series Up-Draft

BOILER Coal - Oil	DIRECT TUBES No.Dia. Length	RETURN TUBES No.Dia. Length
5029–5129	30–3"x 4' 3⅞"	30–3"x 9' 8 "
5033–5133	49–3"x 3' 7⅞"	48–3"x 8' 7⅛"
5034–5134	49–3"x 4' 7⅛"	48–3"x10' 0⅜"
5036–5136	49–3"x 5' 7¾"	48–3"x11' 7 "
5038–5138	60–3"x 4'11⅜"	66–3"x10'11⅛"
5039–5139	60–3"x 6' 1¼"	66–3"x12' 7 "
5040–5140	82–3"x 6' 1½"	76–3"x12' 7¼"
5041–5141	82–3"x 7' 4⅝"	76–3"x14' 4⅜"
5042–5142	101–3"x 6'10⅜"	98–3"x13'10¼"
5043–5143	101–3"x 8' 1⅞"	98–3"x15' 7¾"
5044–5144	122–3"x 8' 7½"	108–3"x16' 1⅜"
5045–5145	122–3"x10' 1⅜"	108–3"x18' 1¼"

"6000" Series Down-Draft

6027–6127	30–3"x 2' 2⅜"	30–3"x 7' 9½"
6028–6128	30–3"x 2' 9¼"	30–3"x 8' 6⅝"
6029–6129	30–3"x 3' 2¼"	30–3"x 9' 5⅛"
6030–6130	40–3"x 2' 7¾"	36–3"x 8' 8 "
6031–6131	40–3"x 3' 2¾"	36–3"x 9' 3 "
6032–6132	40–3"x 3' 7¾"	36–3"x 9'11 "
6033–6133	49–3"x 2'10¾"	48–3"x 8'11 "
6034–6134	49–3"x 3' 4½"	48–3"x 9' 7¾"
6035–6135	49–3"x 3' 9¼"	48–3"x10' 6½"
6036–6136	49–3"x 4' 5 "	48–3"x11' 2¼"
6037–6137	60–3"x 3' 2 "	66–3"x 9'11¾"
6038–6138	60–3"x 3'10½"	66–3"x11' 0¼"
6039–6139	60–3"x 5' 4¾"	66–3"x12'11½"
6040–6140	82–3"x 4'11⅞"	76–3"x12' 9⅝"
6041–6141	82–3"x 6' 3⅛"	76–3"x14' 3⅞"
6042–6142	101–3"x 6' 1⅝"	98–3"x14' 5½"
6043–6143	101–3"x 8' 1⅛"	98–3"x16'11 "
6044–6144	122–3"x 8' 5⅞"	108–3"x17' 3¾"
6045–6145	122–3"x10' 2⅛"	108–3"x19' 6 "

Kewanee Firebox Boiler
Welded Single-Pass
"G" Series Up-Draft

Boiler	TUBES No.Dia. Length
G-23	36–3"x 3' 9⅞"
G-28	36–3"x 4' 8⅞"
G-32	36–3"x 5' 8⅞"
G-36	36–3"x 6' 7⅛"
G-39	52–3"x 5' 0⅞"
G-44	52–3"x 5'10⅛"
G-51	52–3"x 6'10⅜"
G-55	66–3"x 5'11¼"
G-64	66–3"x 7' 0¾"
G-71	66–3"x 7'11¼"

Kewanee Residence Boiler
Welded Two-Pass Tubes
Round Type "R"

BOILER Coal - Oil		DIRECT TUBES No.Dia. Length	RETURN TUBES No.Dia. Length
735–2735	1735	4-4"x 17 "	4-4"x 27 "
736–2736	1736	5-4"x 19½"	5-4"x 29 "

Square Type "R"

740–2740	1740	7–4"x 1' 6¾"	7–4"x 2' 4⅜"
741–2741	1741	7–4"x 2' 0⅜"	7–4"x 2'10⅞"
742–2742	1742	7–4"x 2' 6⅜"	7–4"x 3' 4⅜"
743–2743	1743	7–4 x 3' 0⅜"	7–4"x 3'10⅞"
745–2745	1745	10–4"x 3' 0⅜"	10–4"x 3'10⅞"
746–2746	1746	10–4"x 3' 6⅜"	10–4"x 4' 4⅜"
747–2747	1747	10–4"x 4' 0⅜"	10–4"x 4'10⅞"
748–2748	1748	10–4"x 4' 6⅜"	10–4"x 5' 4⅜"

Kewanee Type "C" Boiler
Welded Two-Pass Tubes
Smokeless and Direct Draft

BOILER Coal - Oil		DIRECT TUBES No.Dia. Length	RETURN TUBES No.Dia. Length
749–2749	1749	21–3"x 2' 5⅛"	24–3"x 4' 2¾"
750–2750	1750	21–3"x 2'11½"	24–3"x 4' 8¾"
751–2751	1751	21–3"x 3'11½"	24–3"x 5' 8¾"
752–2752	1752	21–3"x 4' 7¾"	24–3"x 6' 5 "
753–2753	1753	27–3"x 4' 2¼"	30–3"x 5'11½"
754–2754	1754	27–3"x 4'10¼"	30–3"x 6' 7½"
755–2755	1755	27–3"x 5' 9¾"	30–3"x 7' 7 "
756–2756	1756	35–3"x 5' 6¼"	34–3"x 7' 3½"
757–2757	1757	35–3"x 6' 1½"	34–3"x 7'10¾"
758–2758	1758	35–3"x 6' 8½"	34–3"x 8' 5¾"
759–2759	1759	48–3"x 5' 7¼"	48–3"x 7' 6½"
760–2760	1760	48–3"x 6' 8¾"	48–3"x 8' 8 "
761–2761	1761	62–3"x 6' 1¾"	56–3"x 8' 1½"
762–2762	1762	62–3"x 7' 0¼"	56–3"x 9' 0 "
763–2763	1763	70–3"x 7' 6¼"	62–3"x 9' 8 "
764–2764	1764	70–3"x 8' 9¼"	62–3"x10'11 "
765–2765	1765	82–3"x 7' 9¾"	86–3"x 9'11½"
766–2766	1766	82–3"x 8'10¼"	86–3"x11' 0 "
767–2767	1767	94–3"x 8' 7¼"	92–3"x10'11 "
768–2768	1768	94–3"x 9'11¾"	92–3"x12' 3½"
769–2769	1769	124–3"x 8' 8 "	118–3"x11' 0 "
770–2770	1770	124–3"x10' 2 "	118–3"x12' 6 "

EXCEPTIONS FOR EARLIER STYLES

Boilers Previous to Date:	Series	BOILER Coal - Oil		DIRECT TUBES No.Dia. Length	RETURN TUBES No.Dia. Length
12- 6-29	1-X	750–2750	1750	21–3"x 3' ½"	24–3"x 4' 9¾"
1-21-31	1-X	759–2759	1759	48–3"x 6' 2¼"	48–3"x 8' 1½"
12-22-32	1-X	756–2756	1756	40–3"x 4' 4¾"	44–3"x 6' 2 "
12-22-32	1-X	757–2757	1757	40–3"x 4'10¾"	44–3"x 6' 8 "
12-22-32	1-X	758–2758	1758	40–3"x 5' 4¾"	44–3"x 7' 2 "

NOTE: WHEN ORDERING TUBES GIVE DATE OF BOILER OR SERIES NUMBER, AND CHECK ACTUAL LENGTHS AND NUMBER IN EACH TUBE NEST.
LENGTHS IN THESE TABLES INCLUDE 1 IN. FOR ROLLING AND BEADING EXCEPT ON RO.R—SQ.R TUBE LENGTHS INCLUDE ONLY ¾" TO 1".
Kewanee Boiler Corp. assumes no responsibility for tubes ordered too long or too short.

Tubes: Size, Length and Number
KEWANEE Firebox Boilers (Simplified Practice) 15 Lb., also HI Pressure.

Kewanee Firebox Boiler Riveted Double-Pass "500" Series Up-Draft

Boiler	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
576	24–3"x3' 2¾"	23–3"x 7' 8 "
577	24–3"x4' 2¼"	23–3"x 8' 7½"
578	32–3"x3' 3⅝"	30–3"x 7' 9 "
579	32–3"x4' 0⅛"	30–3"x 8' 5½"
580	42–3"x3' 6⅛"	39–3"x 7'11½"
581	42–3"x4' 3⅝"	39–3"x 9' 3 "
582	53–3"x3' 4 "	50–3"x 9' 8 "
583	53–3"x4' 2 "	50–3"x11' 4 "
584	68–3"x4' 3 "	62–3"x11' 5 "
585	68–3"x5'10 "	62–3"x13' 4 "
586	82–3"x5' 8 "	74–3"x13' 2 "
587	101–3"x5' 2⅛"	87–3"x13' 0 "
588	101–3"x7' 0⅝"	87–3"x15'10½"
589	117–3"x7' 0½"	108–3"x15'10½"
590	117–3"x8' 9½"	108–3"x18' 1½"

Kewanee Firebox Boiler Riveted Double-Pass "400" Series Up-Draft

480	24–4"x 5' 8⅝"	20–4"x10' 2 "
481	24–4"x 6'11⅛"	20–4"x11'10½"
482	28–4"x 5' 7½"	28–4"x11'11½"
483	28–4"x 6'10½"	28–4"x14' 0½"
484	38–4"x 6'11½"	34–4"x14' 1½"
485	38–4"x 9' 1½"	34–4"x16' 7½"
486	46–4"x 7'11 "	46–4"x15' 5 "
487	55–4"x 8' 0⅜"	50–4"x15'10½"
488	55–4"x10' 8¾"	50–4"x19' 6 "
489	68–4"x 9'10 "	66–4"x18' 8 "
490	68–4"x12' 0⅞"	66–4"x21' 5 "

Kewanee Firebox Boiler Riveted Double-Pass "300" Series Smokeless Down-Draft

376	24–3"x 1'10¾"	23–3"x 7' 4 "
377	24–3"x 2' 8¾"	23–3"x 8' 4 "
378	32–3"x 2' 1⅛"	30–3"x 7' 6½"
379	32–3"x 2' 8⅝"	30–3"x 8' 4 "
380 HI.Pr.	42–3"x 2' 4⅛"	39–3"x 7'11½"
380	24–4"x 4' 4¼"	20–4"x 9'11½"
381	24–4"x 5' 4¾"	20–4"x11' 8 "
382	28–4"x 4'11½"	28–4"x11' 3½"
383	28–4"x 6' 2 "	28–4"x13' 4 "
384	38–4"x 6' 4 "	34–4"x13' 6 "
385	38–4"x 8' 5 "	34–4"x15'11 "
386	46–4"x 7' 4 "	46–4"x14'10 "
387	55–4"x 7' 5⅜"	50–4"x15' 3½"
388	55–4"x10' 0⅜"	50–4"x18'10½"
389	68–4"x 9' 2 "	66–4"x18' 0 "
390	68–4"x11' 5 "	66–4"x20' 9 "

Kewanee Firebox Boiler Riveted Single-Pass Brickset & Type K Up-Draft

Boiler	TUBES No. Dia. Length
3– 3 K	17–3"x 5' 2 "
4– 4 K	28–3"x 4' 8 "
5– 5 K	28–3"x 5' 8 "
6– 6 K	28–3"x 6' 8 "
8– 8 K	39–3"x 6' 2 "
9– 9 K	39–3"x 7' 2 "
10–10 K	46–3"x 6' 8 "
11–11 K	46–3"x 7' 8 "
12–12 K	46–3"x 8' 8 "
13–13 K	39–4"x 9' 1 "
14–14 K	39–4"x11' 1 "
15–15 K	48–4"x10' 1⅛"
16–16 K	48–4"x12' 1⅛"
17–	62–4"x10' 7⅛"
18–18 K	62–4"x12' 1⅛"
19–	82–4"x10' 1⅛"
20–20 K	82–4"x11' 7⅛"

Kewanee Firebox Boiler Welded Single-Pass "G" Series Down-Draft

Boiler	TUBES No. Dia. Length
G–18	36–3"x 2' 5⅞"
G–22	36–3"x 3' 5⅞"
G–26	36–3"x 4' 3⅜"
G–30	36–3"x 5' 3⅜"
G–35	36–3"x 6' 4⅛"
G–40	52–3"x 5' 0⅞"
G–45	52–3"x 5'10⅛"
G–50	52–3"x 6' 7⅜"
G–60	52–3"x 8' 2⅞"

Kewanee Firebox Boiler Welded Single-Pass "P" Series Up-Draft

P–18	36–3"x 3' 3 "
P–22	36–3"x 4' 2 "
P–26	36–3"x 5' 0 "
P–30	36–3"x 6' 0 "
P–35	36–3"x 7' 1 "
P–40	52–3"x 5' 8 "
P–45	52–3"x 6' 6 "
P–50	52–3"x 7' 3 "
P–60	52–3"x 8'10 "

Kewanee Boiler Scotch Marine Type Welded "M-8000" Series

Boiler	TUBES No. Dia. Length
M8173	23–3"x 6' 6⅝"
M8174	23–3"x 7' 8⅝"
M8175	37–3"x 6' 0 "
M8176	37–3"x 6'11¾"
M8177	37–3"x 8' 0⅛"
M8178	53–3"x 6' 6½"
M8179	53–3"x 7' 3¼"
M8180	71–3"x 6' 8¼"
M8181	71–3"x 7' 9¾"
M8182	89–3"x 7' 8¼"
M8183	89–3"x 9' 0⅜"
M8184	109–3"x 9' 4 "
M8185	109–3"x11' 3 "
M8186	128–3"x11' 2¾"
M8187	128–3"x12'10 "
M8188	148–3"x14' 0 "
M8189	178–3"x14' 0 "
M8190	200–3"x13' 4¾"

Kewanee High Pressure Portable Riveted "Scottie Junior" Series

Boiler	TUBES No. Dia. Length
HM 9	28–3"x 3' 6 "
HM 15	28–3"x 5' 3 "
HM 20	28–3"x 7' 0 "
HM 25	36–3"x 6'11 "
HM 30	36–3"x 8' 4 "

NOTE: WHEN ORDERING TUBES GIVE DATE OF BOILER OR SERIES NUMBER, AND CHECK ACTUAL LENGTHS ALSO NUMBER IN EACH TUBE NEST.

LENGTHS IN THESE TABLES INCLUDE 1 IN. FOR ROLLING AND BEADING.

Kewanee Boiler Corp. assumes no responsibility for tubes ordered too long or too short.

Tubes: Size, Length and Number
Kewanee Firebox Boilers (Simplified Practice)

Kewanee Residence Boiler
Welded Two-Pass Tubes
Round Type "R"

BOILER same for 2734-2736 same for 0734-0736	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
—1733	4–3 "x13½"	4–3 "x16½ "
734–1734,1X	4–3½"x1'2¾"	4–3½"x2' 0 "
735–1735,4&5X	4–4 "x1'5 "	4–4 "x2' 3 "
6X	4–4 "x1'5 "	4–4 "x2' 4⅛"
736–1736,4&5X	5–4 "x1'7 "	5–4 "x2' 4⅝"
6X	5–4 "x1'7 "	5–4 "x2' 6⅝"
— 1737,1X	5–4 "x2'9½"	5–4 "x3' 9⅛"

Square Type "R"

same for 2740-2748 same for 0740-0748		
740–1740	7–4 "x1'6¾"	7–4 "x2' 4⅜"
741–1741	7–4 "x2'0¾"	7–4 "x2'10⅜"
742–1742	7–4 "x2'6¾"	7–4 "x3' 4⅜"
743–1743	7–4 "x3'0¾"	7–4 "x3'10⅜"
745–1745	10–4 "x3'0¾"	10–4 "x3'10⅜"
746–1746	10–4 "x3'6¾"	10–4 "x4' 4⅜"
747–1747	10–4 "x4'0¾"	10–4 "x4'10⅜"
748–1748	10–4 "x4'6¾"	10–4 "x5' 4⅜"

Square 83 "R"

83R1	16–2½"x1'6¾"	15–2½"x2' 4⅜"
83R2	16–2½"x2'0¾"	15–2½"x2'10⅜"
83R3	16–2½"x2'6¾"	15–2½"x3' 4⅜"
83R4	16–2½"x3'0¾"	15–2½"x3'10⅜"
83R6	21–2½"x3'0¾"	20–2½"x3'10⅜"
83R7	21–2½"x3'6¾"	20–2½"x4' 4⅜"
83R8	21–2½"x4'0¾"	20–2½"x4'10⅜"
83R9	21–2½"x4'6¾"	20–2½"x5' 4⅜"

Kewanee Type "C" Boiler
Welded Two-Pass Tubes
Smokeless and Direct Draft

BOILER same for 2773-2790 same for 0773-0790 same for 27L73-27L90	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
1773–7L73	21–3"x 2' 5⅜"	24–3"x 4' 2⅞"
774–1774–7L74	21–3"x 2'11⅜"	24–3"x 4' 8¼"
775–1775–7L75	21–3"x 3' 5⅜"	24–3"x 5' 2¾"
776–1776–7L76	21–3"x 4' 4¼"	24–3"x 6' 1½"
777–1777–7L77	27–3"x 4' 2¼"	30–3"x 5'11½"
778–1778–7L78	27–3"x 4'10¼"	30–3"x 6' 7½"
779–1779–7L79	27–3"x 5' 5¾"	30–3"x 7' 3 "
780–1780–7L80	35–3"x 5' 6¼"	34–3"x 7' 3½"
781–1781–7L81	35–3"x 6' 8¾"	34–3"x 8' 5¾"
782–1782–7L82	48–3"x 5' 9⅞"	48–3"x 7' 9 "
783–1783–7L83	48–3"x 7' 1 "	48–3"x 9' 0¼"
784–1784–7L84	62–3"x 7' 3¾"	56–3"x 9' 3⅜"
*85–1785–7L85	70–3"x 7'10⅞"	62–3"x10' 0⅜"
6–1786–7L86	82–3"x 7' 2¾"	86–3"x 9' 4½"
d7–1787–7L87	82–3"x 8' 5¾"	86–3"x10' 7½"
788–1788–7L88	94–3"x 9' 8¾"	92–3"x12' 0½"
789–1789–7L89	124–3"x 9' 1¼"	118–3"x11' 5¼"
790–1790–7L90	124–3"x10'10¼"	118–3"x13' 2¼"

Kewanee Firebox Boiler
Weld + Rivet Double-Pass
"5000" Series Up-Draft

BOILER Coal - Oil	DIRECT TUBES No. Dia. Length	RETURN TUBES No. Dia. Length
5076-5176	30–3"x1'11 "	30–3"x 8' 4 "
5077-5177	30–3"x2' 8 "	30–3"x 7' 1 "
5078-5178	30–3"x3' 1 "	30–3"x 8' 0 "
5079-5179	30–3"x3' 6 "	30–3"x 8'11 "
5080-5180	40–3"x3' 8¾"	36–3"x 8' 8 "
5081-5181, 1X	49–3"x3' 1¾"	48–3"x 8' 1 "
2X & Up	40–3"x4' 7 "	36–3"x10' 0¼"
5082-5182	49–3"x3' 8¾"	48–3"x10' 0 "
5083-5183	49–3"x4' 6¾"	48–3"x11' 8 "
5084-5184	60–3"x4' 9¾"	60–3"x11'11½"
5085-5185	60–3"x6' 6¼"	60–3"x14' 0 "
5086-5186	78–3"x5' 6¾"	78–3"x13' 0½"
5087-5187	78–3"x6' 9¾"	78–3"x14' 7½"
5088-5188	97–3"x6' 3⅜"	98–3"x15' 1½"
5089-5189	116–3"x7' 0⅜"	108–3"x15'10½"
5090-5190	116–3"x8' 9⅜"	108–3"x18' 1½"

"6000" Series Down-Draft

6077-6177	30–3"x1' 9¾"	30–3"x 7' 2¾"
6078-6178	30–3"x2' 3⅝"	30–3"x 7' 8¾"
6079-6179	30–3"x2' 9⅞"	30–3"x 8' 7 "
6080-6180	40–3"x2'10¾"	36–3"x 8' 6 "
6081-6181	40–3"x3' 7¾"	36–3"x 9'11 "
6082-6182	49–3"x3' 4¼"	48–3"x 9' 7½"
6083-6183	49–3"x4' 2¼"	48–3"x11' 3½"
6084-6184	60–3"x4' 4¾"	60–3"x11' 8½"
6085-6185	60–3"x6' 0¾"	60–3"x13' 6½"
6086-6186	78–3"x5' 1¾"	78–3"x12' 7½"
6087-6187	78–3"x6' 4¾"	78–3"x14' 2½"
6088-6188	97–3"x5'11⅝"	98–3"x14' 9½"
6089-6189	116–3"x6' 8⅛"	108–3"x15' 6 "
6090-6190	116–3"x8' 5⅛"	108–3"x17' 9 "

NOTE: WHEN ORDERING TUBES GIVE DATE OF BOILER OR SERIES NUMBER, AND CHECK ACTUAL LENGTHS ALSO NUMBER IN EACH TUBE NEST.

LENGTHS IN THESE TABLES INCLUDE 1 IN. FOR ROLLING AND BEADING. . . . EXCEPT ON RO.R—SQ.R—83R BOILERS LENGTHS INCLUDE ¾"-1".

Kewanee Boiler Corp. assumes no responsibility for tubes ordered too long or too short.

BOILER STAMPINGS

Each Kewanee Low Pressure Boiler has identifying marks stamped in the shell plate. These stampings should be uncovered and visible.

00000 lb	(weight in pounds)
00000	(stock order number)
LM-000	(boiler size number)
 KEWANEE	(ASME clover leaf symbol)
MAX. WP STEAM 15 lb WATER 30 lb	(maximum working pressure)
VC 0000 lb	(valve capacity)
 00000	(Insurance Company mark & number)
1954	(year in which boiler was built)

AMERICAN STANDARD HEAT TRANSFER PRODUCTS DEPARTMENT

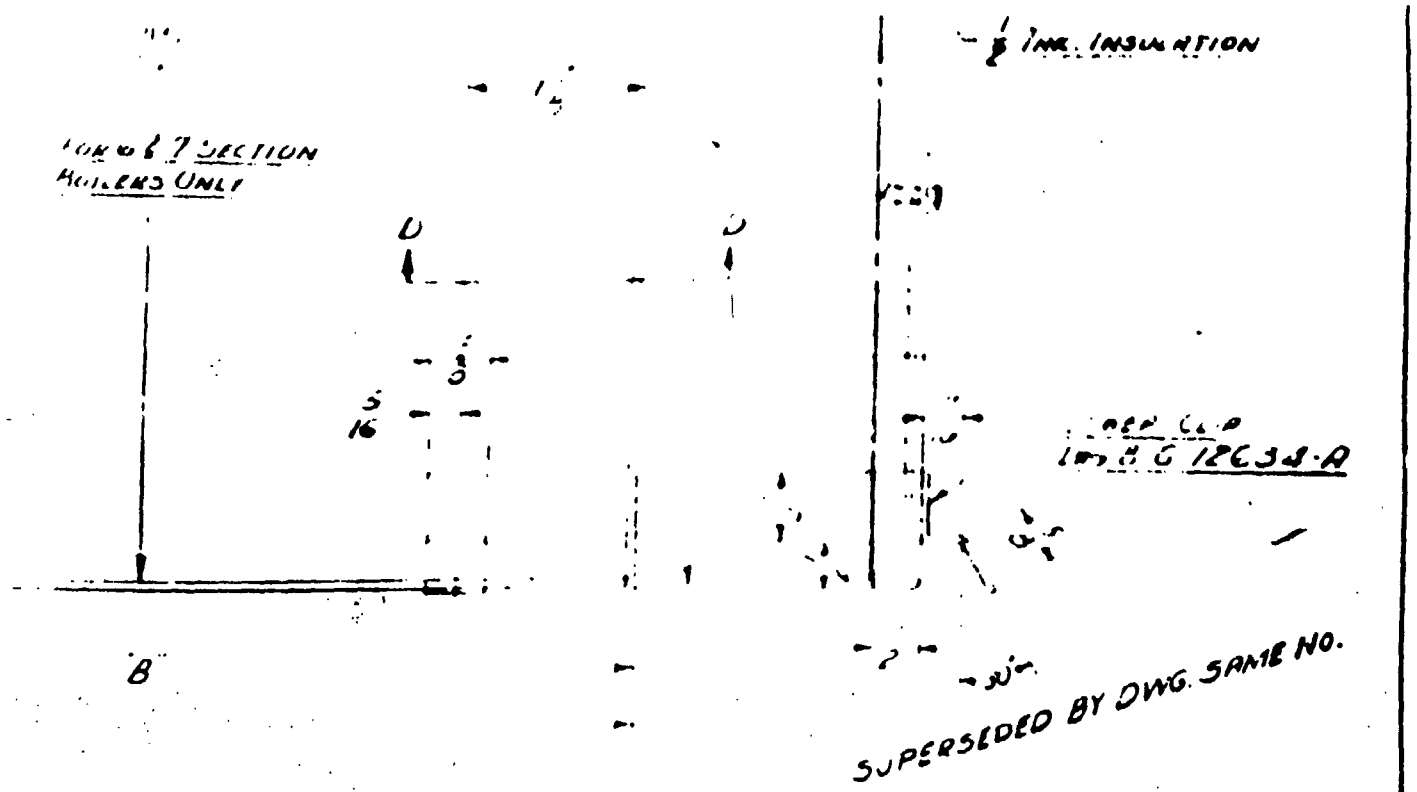
SALES OFFICES IN ALL PRINCIPAL CITIES

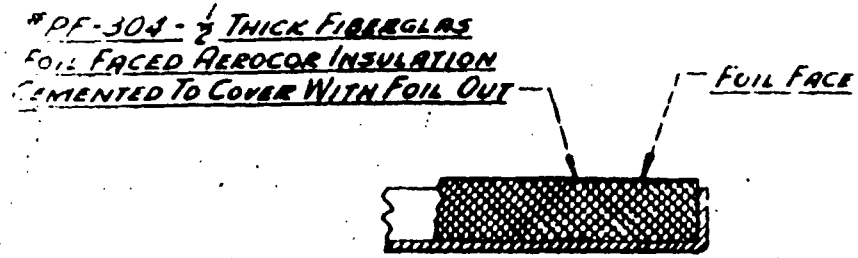
Executive Offices: Detroit, Michigan 48232
In Canada: 1401 Dupont St., Toronto 172, Ontario
International Export Division: 40 West 40th St., New York, N. Y. 10018

FORM 3149 1M 7-69 JM

LITHO IN U.S.A.

24313





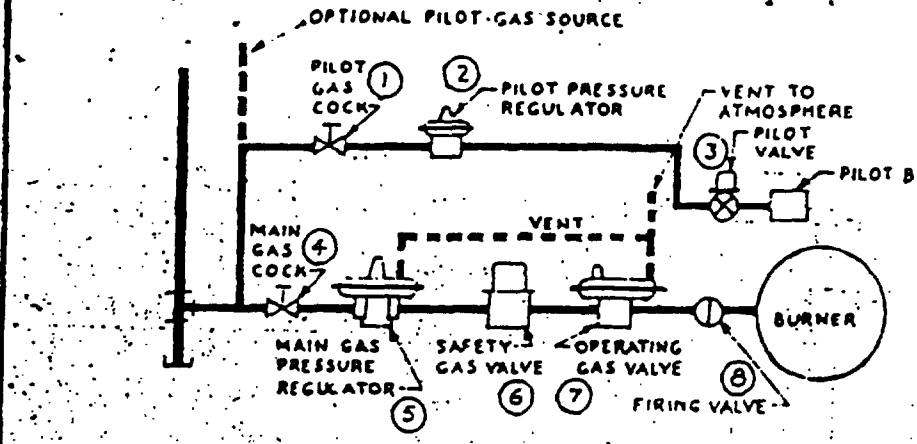
SECTION C-C
(FULL SIZE)

E	REVISED	G.B.		
D	REVISED	G.B.		
C	REVISED	F.R.S.		
B	REVISED	G.B.		
A	REVISED & REDRAWN	F.R.S.		

AMERICAN-STANDARD

ARCOLEADER BOILER
CLEANOUT DOOR ASSEMBLY

24314



STANDARD GAS TRAIN (115/60)						ACCEPTED SUBSTITUTIONS				
Item	Size	Press. Drop *	Catalog Number	Kewanee Number	Mfgr.	Size	Press Drop *	Catalog Number	Kewanee Number	Mfgr.
1	1/8 x 1/4	—	19889	206054	Schoenberger					
2	1/4	—	TROD	280186	Thermac					
3	1/4	—	91FA2	263743	Baso					
4	2	.17	R-1430	206060	A.C.F.					
5	2	.62	RV-91	251078	Maxitrol					
			HO*1 4"-12"	254092						
6	2	.78	V5034A	263609	Honeywell					
			V4034A	263621						
7	2	.25	B-50D	263291	Gen. Controls					
8	2	.08	V51E1018	280202	Honeywell					

* Based on 1,000 Btu Gas

2" Piping - Pressure Drop .32 "W.C.

Minimum Pressure at Ring 320 "W.C.

KEWANEE reserves the right to substitute equivalent valves as indicated in all cases where such substitutions will meet gas requirements specified on the order.

24315

7-16-62 A
2-6-64

Kewanee Std. - Two Valve Train

SCALE NONE	D.J. NO. 20-1	AMERICAN-Standard INDUSTRIAL DIVISION KEWANEE BOILER PRODUCTS KEWANEE, ILLINOIS	NO. A-16476
DRAWN JFS	DATE 11-29-61		UL Controls M235 Units
CHKD.	APPD.		Natural Gas 2937 CFH
ALL MACHINED DIMENSIONS TO HAVE A TOLERANCE OF ± .010 UNLESS OTHERWISE SPECIFIED		USE DIMENSIONS ONLY. USE ONLY IF CERTIFIED	Avail. Press. 5½"-13½" W.C.

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