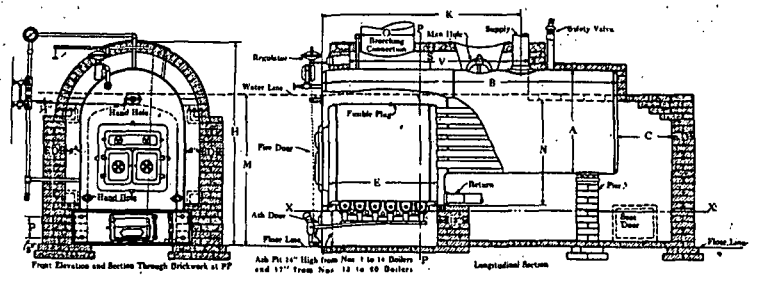
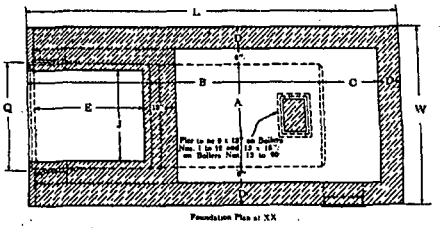


KEWANEE PORTABLE SMOKELESS BOILERS TYPE K

Number of Boiler	104K	105K	106K	107K	108K	109K	110K	111K	112K	113K	114K	115K	116K	117K	118K	119K	120K
Capacity, Steam...sq. ft.	1500	1900	2200	2500	2900	3400	3800	4400	5200	6200	7100	8100	9500	10900	12300	13300	15200
Heating Surface...sq. ft.	157	185	220	234	271	308	338	381	425	500	590	677	787	879	987	1090	1230
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 Boiler...in.	36	36	36	42	42	42	48	48	48	54	54	60	60	66	66	72	72
Length Boiler Over-all...ft. in.	9-11	11-5	12-11	11-2	12-8	14-2	13-8	15-2	16-8	17-1	19-7	19-4	21-10	19-10	21-10	19-10	21-10
Diameter of Stack...in.	18	18	20	20	20	22	22	24	24	28	28	32	32	34	34	36	36
Height of Stack...ft.	40	40	40	45	45	45	45	50	50	55	55	55	55	65	65	65	65
Diameter of Stack, Two Boilers...in.	24	24	26	26	28	30	30	32	32	34	36	38	38	40	42	44	46
Height of Stack, Two Boilers...ft.	50	50	50	55	55	55	55	55	55	65	65	65	70	70	75	75	75
Size of Steam Opening...in.	5	6	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8
Size of Return...in.	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve...in.	1½	2	2	2	2	2½	2½	2½	3	3	3½	3½	4	4	4	2-2½	2-3
C—Header to Bridge Wall...in.	7	8	9	9	10	12	10	11	12½	13	14	14	15½	14	15½	16	17
D—Length of Ash-pit...in.	32	38	44	38	44	50	44	50	56	57	63	63	67	63	67	69	75
E—Length of Grate...in.	31	37	43	37	43	49	43	49	55	55	61	61	67	61	67	67	73
F—Center to Center Bolts in Ash-pit Front...in.										54	54	60	60	66	66	72	72
G—Bridge Wall to Rear Wall...in.										6	6	12	12	12	12	12	12
H—Height of Boiler...in.	65	65	65	71	71	71	77	77	77	83	83	93	93	99	99	105	105
J—Width of Ash-pit...in.	31	31	31	37	37	37	43	43	43	49	49	54	54	60	60	66	66
K—Location of 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 of Foundation...in.	51	57	63	60	66	72	72	78	84	94	100	106	112	106	112	112	118
M—Width of Foundation...in.	40	40	40	46	46	46	54	54	54	75	75	80	80	86	86	92	92
N—Length of Breeching Connection...in.	24	24	24	30	30	30	36	36	36	46	46	50	50	54	54	68	68
O—Width of Breeching Connection...in.	10	10	10	10	10	10	10	10	10	10	10	12	12	12	12	13	13
Q—Height of Return...in.	19	19	19	19	19	19	19	19	19	19	19	23	23	23	23	23	23
R—Depth of Smoke Box...in.	16	16	16	16	16	16	16	16	16	16	16	18	18	18	18	18	18
S—Location of Safety Valve...in.	15	18	18	13	12	13	16	18	18	21	30	26	30	30	30	20	34
U—Height of Steam Supply...in.	67	67	67	73	73	73	79	79	79	85	85	95	95	101	101	107	107
V—Minimum Space Required at Rear...in.	21	21	21	24	24	24	27	27	27	30	30	33	33	36	36	39	39
W—Height of Water-line...in.	55	55	55	58½	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
X—Floor Line to Bottom of Cylinder...in.	29	29	29	29	29	29	29	29	29	29	29	33	33	33	33	33	33
Z—Height of Ash-pit...in.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	17
†Req'd at Front to Draw Tubes...in.	7	13	19	4	10	16	10	16	22	27	45	26	44	32	44	20	32
†Req'd at Rear to Draw Tubes...in.	39	51	63	45	57	69	63	75	87	92	116	102	126	108	126	102	120
*Number of Common Brick										955	980	1300	1350	1300	1350	1375	1450
Number of Fire Brick	85	85	85	115	115	115	155	155	155	195	195	210	215	240	240	255	255
Outside Surface to be Covered...sq. ft.	93	102	115	131	148	164	180	199	218	243	278	311	350	350	384	380	407

*Foundations not included. †If space is available at front, it is not necessary at rear, and vice-versa. Boilers No. 104K to 112K are furnished with cast iron bases.





KEWANEE FIREBOX BOILERS—BRICK-SET TYPE

Number of Boiler	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	20
Capacity, Steam...sq. ft.	900	1050	1200	1400	1700	2000	2600	3000	3500	4000	4500	5500	6500	7500	8700	10000	11000	12000	14000
Diameter of Boiler...in.	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
Length of Boiler Over-all...ft.	6½	7½	8½	7½	9	10½	10	11½	10½	12	13½	14	16½	15½	18	16	18	16	18
Heating Surface...sq. ft.	113	131	147	180	215	250	305	350	368	420	472	560	673	743	873	954	1080	1167	1329
Area of Grate...sq. ft.	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.	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
Diameter of Stack...in.	12	12	14	14	16	16	18	20	20	22	22	26	26	30	30	30	30	34	34
Minimum Height of Stack...ft.	40	40	40	40	40	45	45	45	45	50	50	50	50	55	55	60	60	60	60
Diameter of Breeching, Two Boilers...in.	18	20	22	22	24	24	28	32	32	32	34	36	36	40	40	40	42	44	46
Diameter of Stack, Two Boilers...in.	18	18	20	20	22	22	26	28	28	30	32	34	34	36	36	36	38	40	42
Minimum Height of Stack, Two Boilers...ft.	45	45	45	45	45	45	50	50	50	50	50	55	60	60	70	70	70	70	70
Size of Steam Opening...in.	4	4	5	5	6	6	6	6	6	7	7	7	7	7	7	8	8	8	8
Size of Return...in.	2½	2½	3	3	3	3	4	4	4	4	5	5	5	5	5	6	6	6	6
Size of Safety Valve...in.	1¼	1¼	1¼	1½	1½	2	2	2	2	2½	2½	2½	3	3	3½	3½	3½	4	4
C—Rear Space...in.	17	17	17	17	17	17	22	22	22	22	22	24	24	24	24	24	24	28	28
D—Thickness Wall...in.	9	9	9	9	9	9	9	9	9	9	9	13	13	13	13	13	13	13	13
E—Length Grate...in.	26	32	38	32	38	44	44	50	44	50	56	56	62	62	68	62	68	68	74
J—Width Ash-pit...in.	25	25	25	31	31	31	37	37	43	43	43	49	49	54	54	60	60	66	66
H—Total Height...in.	70	70	70	77	77	77	83	83	90	90	90	96	96	108	108	114	114	120	120
K—Location of Supply...ft. in.	4-0	4-8	5-6	4-11	5-11	6-11	6-8	7-2	7-0	7-10	8-6	9-2	9-8	9-6	10-8	9-8	10-8	9-9	10-9
M—Height of Water-line...in.	52	52	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	80	85½	85½
N—Height of Side Flue...ft. in.	2-8	2-8	2-8	3-0	3-0	3-3	3-3	3-6	3-6	3-6	4-0	4-0	4-3	4-3	4-10	4-10	5-3	5-3	
O—Diameter Breeching Connection...in.	12	14	16	16	18	18	20	22	22	24	24	28	28	32	32	32	32	36	36
S—Top Flue Space...in.	6	6	6	7	7	7	7	7	8	8	8	8	8	10	10	10	10	10	10
V—Length of Arch...ft. in.	3-2	3-10	4-9	4-1	5-1	6-1	6-3	6-9	6-3	7-3	7-9	8-1	8-7	8-5	9-7	8-7	9-8	8-9	9-9
P—Anchor Bolt Centers for Ash-pit Front	8	8	8	8	8	8	8	8	8	8	8	8	8	11	11	11	11	11	11
Q—Anchor Bolt Centers for Ash-pit Front	30	30	30	36	36	36	42	42	48	48	48	54	54	60	60	66	66	72	72
L—Total Length...ft. in.	8-7	9-8	10-8	9-8	11-2	12-8	12-7	14-1	13-1	14-7	16-1	17-0	19-6	18-7	21-1	19-1	21-1	19-5	21-5
W—Total Width...ft. in.	5-0	5-0	5-0	5-6	5-6	5-6	6-0	6-0	6-6	6-6	6-6	7-8	7-8	8-2	8-2	8-8	8-8	9-2	9-2
*Number of Common Brick	1450	1600	1750	1900	2150	2400	2650	2900	3000	3300	3600	5300	5900	6500	7200	7200	7700	7700	8200
*Common Brick for Two Boilers	2450	2700	2950	3300	3750	4100	4750	5350	5400	5900	6450	8350	10350	11350	12550	12400	13450	13250	13850

*Foundations not included. NOTE—A Firing Space of about 8'-0" should be maintained at front of Boilers. This provides sufficient space to draw tubes through firedoor.