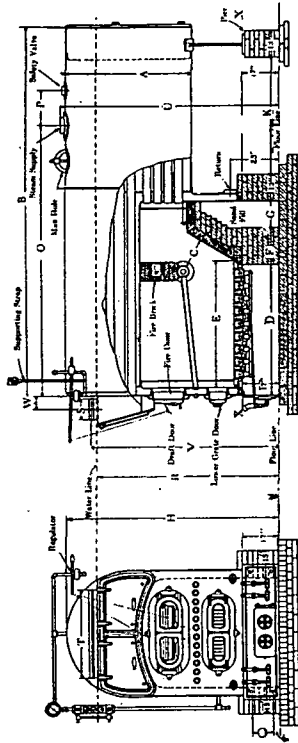
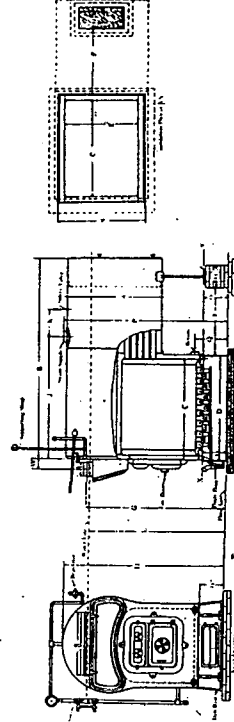
KEWANEE SMOKELESS BOILERS—
PORTABLE TYPE

Number of Boiler	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324
Capacity, Steam.....	3000	3500	4000	4500	5000	5500	6000	6500	7500	8500	10000	12000	14000	16000	18000	20000	25000	30000
Heating Surface.....	297	352	391	445	495	546	592	643	721	773	912	1053	1204	1316	1458	1549	2074	2629
Area of Upper Grate.....	8.8	10.1	11.4	12.9	14.7	16.3	17.1	18.5	20.0	21.4	23.5	25.9	28.5	30.5	32.8	34.6	41.7	44.8
Diameter of Boiler.....	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	84	88
Length of Boiler.....	9.8	10.5	11.2	12.0	12.8	13.5	14.2	15.0	15.8	16.5	17.2	18.0	18.8	19.5	20.2	21.0	22.0	23.0
Height of Stack.....	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Diameter of Stack.....	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Height of Stack, Two Boilers.....	50	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Height of Stack, Two Boilers.....	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Size of Steam Opening.....	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Size of Return Valve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Size of Safety Valve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
D—Length Grate to Open Rear Flue Doors.....	37	43	49	55	61	67	73	79	85	91	97	103	109	115	121	127	133	139
E—Length Grate to Bridge Wall.....	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
D—Length Ash-pit.....	38	44	50	56	62	68	74	80	86	92	98	104	110	116	122	128	134	140
K—Rear Wall to Pier.....	29	39	45	51	57	63	69	75	81	87	93	99	105	111	117	123	129	135
J—Width Foundation.....	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
W—Width Boiler.....	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
H—Height of Water-line.....	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
U—Height of Breaching Connection.....	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
R—Height of Breaching Connection.....	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
O—Location Safety Valve.....	5-11	6-8	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3
Q—Location Safety Valve.....	12	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
S—Width Breaching Connection to Front of Boiler.....	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
T—Length Breaching Connection.....	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
Req'd at Front to Draw Tubes.....	7-7	8-11	9-5	10-5	11-5	12-5	13-5	14-5	15-5	16-5	17-5	18-5	19-5	20-5	21-5	22-5	23-5	24-5
Req'd at Rear to Draw Tubes.....	6-0	7-4	8-4	9-10	10-10	11-10	12-10	13-10	14-10	15-10	16-10	17-10	18-10	19-10	20-10	21-10	22-10	23-10
*Number Common Brick.....	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Number Fire-brick.....	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Outside Surface to be Covered.....	149	157	173	184	212	221	235	255	280	300	330	350	370	380	400	425	455	485

*Foundations not included. †If space is available at rear, it is not necessary at front, and vice-versa.

KEWANEE BOILERS—PORTABLE TYPE



Number of Boiler	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424
Capacity, Steam.....	2500	2900	3500	4000	4500	5000	5500	6000	7000	8000	9500	11000	13000	15000	17500	20000	25000	28000
Heating Surface.....	278	310	373	416	465	515	565	626	778	878	929	1040	1168	1303	1514	1711	2209	2427
Area of Upper Grate.....	9.18	10.4	11.6	12.6	14.2	15.3	16.8	18.2	20.7	22.9	25.3	28.0	30.8	33.5	36.6	39.6	42.9	46.1
Diameter of Boiler.....	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	84	88
Length of Boiler.....	8.7	9.6	10.4	11.2	12.0	12.8	13.5	14.2	15.0	15.8	16.5	17.2	18.0	18.8	19.5	20.2	21.0	22.0
Height of Stack.....	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Diameter of Stack.....	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Height of Stack, Two Boilers.....	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Height of Stack, Two Boilers.....	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Size of Steam Opening.....	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Size of Return Valve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Size of Safety Valve.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
D—Length Grate to Open Rear Flue Doors.....	36	44	50	56	62	68	74	80	86	92	98	104	110	116	122	128	134	140
E—Length Grate to Bridge Wall.....	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
D—Length Ash-pit.....	38	44	50	56	62	68	74	80	86	92	98	104	110	116	122	128	134	140
K—Rear Wall to Pier.....	29	39	45	51	57	63	69	75	81	87	93	99	105	111	117	123	129	135
J—Width Foundation.....	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
W—Width Boiler.....	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
H—Height of Water-line.....	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
U—Height of Breaching Connection.....	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71
R—Height of Breaching Connection.....	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
O—Location Safety Valve.....	5-11	6-8	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3	7-3
Q—Location Safety Valve.....	12	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
S—Width Breaching Connection to Front of Boiler.....	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
T—Length Breaching Connection.....	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
Req'd at Front to Draw Tubes.....	7-7	8-11	9-5	10-5	11-5	12-5	13-5	14-5	15-5	16-5	17-5	18-5	19-5	20-5	21-5	22-5	23-5	24-5
Req'd at Rear to Draw Tubes.....	6-0	7-4	8-4	9-10	10-10	11-10	12-10	13-10	14-10	15-10	16-10	17-10	18-10	19-10	20-10	21-10	22-10	23-10
*Number Common Brick.....	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Number Fire-brick.....	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Outside Surface to be Covered.....	149	157	173	184	212	221	235	255	280	300	330	350	370	380	400	425	455	485

*Foundations not included. †If space is available at front, it is not necessary at rear, and vice-versa.