

Spencer Heater Company

Williamsport, Pa.

NEW YORK, N. Y.
BUFFALO, N. Y.
ALBANY, N. Y.

PHILADELPHIA, PA.
SCRANTON, PA.
SYRACUSE, N. Y.

BOSTON, MASS.
SPRINGFIELD, MASS.
BINGHAMTON, N. Y.

BALTIMORE, MD.
MANCHESTER, N. H.
SUNBURY, PA.

SPENCER MAGAZINE FEED BOILERS

For more than 35 years the Spencer Heater Company has been a leader in developing and perfecting automatic heat, since George F. Spencer, in 1898, designed the first Spencer Gravity Stoker Boiler.

embodying the magazine feed and operating by the force of gravity alone.

The company is now able to offer the engineer, architect, heating contractor and owner increased facilities and service.



Spencer Cast-Iron Sectional Boilers are furnished now in two types—the J and L series burning No. 1 Buckwheat anthracite and the new C-N series (at lower cost) burning larger fuels such as Chestnut anthracite or Nut size coke. Both types are magazine feed boilers, with all the

Spencer principles of proved success—water jacketed fuel storage magazine, sloping grates and automatic fuel action. They are fully guaranteed as to capacity and successful operation.

The sectional cutaway view above illustrates the Spencer scientific principle. Once a day fuel is put into the magazine. It fills the sloping grate to the level of the magazine mouth. The fire bed always stays at the proper depth for as fast as fuel burns to ash it shrinks and settles on the sloping grate. As the surface of the fire bed is lowered by this shrinking process, more fuel feeds down of its own weight over the top of the fire bed. A regulator furnished as standard equipment with Spencer Boilers automatically controls dampers and drafts.

In operation, Spencer is a gravity stoker boiler. Fuel action is by gravity alone, as fast or as slow as your heating demands dictate, in just the right amount to keep the fire always burning at its most efficient combustion point. This explains why a Spencer Boiler always gives the same

uniform, satisfying heat and burns less coal.

These exclusive Spencer advantages are available in all types, whether you select a new C-N model, or one of the Buckwheat burning boilers.

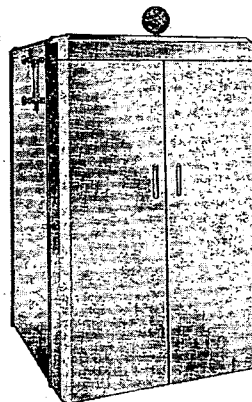
COAL—COKE—GAS—OIL

Spencer J and L Series Boilers are primarily designed to burn low-cost No. 1 Buckwheat anthracite and the C-N series Chestnut anthracite or coke.

Both types are excellent oil burning boilers, showing a high efficiency.

They can be readily adapted for the burning of gas, if desired. Special equipment to convert Spencer Boilers into Spencer Combination Gas Boilers is available for both types.

In emergencies any fuel that can be burned in an ordinary boiler can be just as successfully burned in a Spencer.

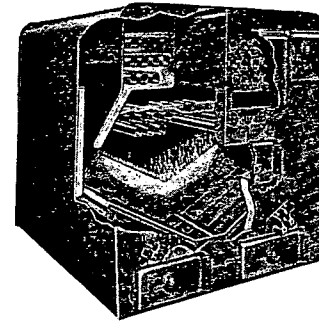


Thermostats—A Minneapolis thermostat and electric damper motor can be furnished as optional equipment.

Jacketed Covering—Attractive new metallic jackets, illustrated here, are available for Spencer Cast-Iron Boilers.

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SPENCER STEEL TUBULAR MAGAZINE FEED BOILERS



For larger buildings we recommend Spencer Steel Tubular Boilers, also of the magazine feed type, burning low-cost No. 1 Buckwheat anthracite (or coke). In the cross section diagram illustrated here part of the fire bed is cut away to show the sloping grates. Just above are the two magazines, with fresh fuel ready to feed down automatically of its own weight to the fire.

Boilers, C. I. and Steel Tubular

Spencer Steel Boilers of the duplex grate type are built in two vertical sections for ease in handling and installation—a great advantage on remodeling or replacement jobs, often eliminating necessity of costly tearing out of walls, etc.

All Spencer Steel Tubular Boilers are of combination water tube and fire tube construction. This is a type of construction which years of experimentation and use have shown to be scientifically correct, and has been developed into the "three pass" design that gives the exceptionally long fire travel for which Spencer Boilers are noted. These boilers are ruggedly built to A.S.M.E. standards, with steel of such tensile strength as to insure long life. Copper bearing tubes are used.

Spencer Boilers are the original "gravity stoker" boiler. Positive in action—trouble free—always dependable. Operate entirely through force of gravitation. No machinery, motors, blowers or moving parts to get out of order and need repairs when heat is most required. There is no power to fail; no source of supply to be cut off by storm, accident or negligence. With a Spencer Boiler, uniform heat is assured at all times, with highest operating efficiency, and at lowest cost.

Sizes and Guaranteed Capacities

Boiler No.	CAST-IRON SECTIONAL TYPE			
	STEAM		WATER	
	*Guaranteed Direct Cast Iron Column Radiation Load, Sq Ft.	†E.D.R. Rating	*Guaranteed Direct Cast Iron Column Radiation Load, Sq Ft.	†E.D.R. Rating
J-3	175	220	290	360
J-4	265	330	440	550
J-5	355	440	590	740
L-105	390	490	645	800
L-106	510	640	845	1050
L-107	630	790	1045	1300
L-205	550	690	910	1140
L-206	725	910	1200	1500
L-207	900	1130	1490	1860
L-208	1075	1350	1780	2220
L-209	1250	1570	2070	2580
L-305	1150	1430	1900	2375
L-306	1500	1870	2475	3095
L-307	1850	2310	3050	3815
L-308	2200	2750	3625	4535
L-309	2550	3190	4200	5255
L-310	2900	3630	4775	5975
L-311	3250	4070	5350	6695
C-N-502	280	350	460	575
C-N-502½	360	450	590	735
C-N-503	440	550	725	905
C-N-504	600	750	990	1235
C-N-505	760	950	1255	1565
C-N-506	920	1150	1520	1895

*The Spencer Heater Company guarantees that when installation is made in accordance with accepted standards, the boiler will carry the number of feet of direct cast-iron column radiation listed. This allows ample provision for heat loss in covered mains, risers and returns and for peak loads.

Boiler No.	STEEL TUBULAR TYPE	
	*Guaranteed Direct Cast-Iron Column Radiation Load, Sq Ft Steam	†E.D.R. Ratings Steam
M4-2	250	310
M4-3	410	510
M4-4	570	710
M4-5	730	910
M4-6	890	1110
M5-4	1200	1500
M5-5	1400	1750
M5-6	1600	2000
M5-7	1800	2250
M5-8	2000	2500
M6-6	2300	2875
M6-7	2600	3250
M6-8	2900	3625
M6-9	3200	4000
M6-10	3500	4375
M7-6	4000	5000
M7-7	4700	5875
M7-8	5400	6750
M7-9	6100	7625
M7-10	6800	8500
M8-6	8000	10000
M8-7	9750	12185
M8-8	11500	14370
M8-9	13250	16555
M8-10	15000	18740

†E.D.R. Ratings represent the attached net radiation load plus piping losses expressed in square feet of equivalent direct radiation (240 B.t.u. steam, 150 B.t.u. hot water) which may be placed on boiler in accordance with accepted standards for economical operation.