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(June 1952)

KEWANEE

SQUARE • HEAT TYPE "R" BOILER

For Heating
Medium Sized
Buildings
Dependably with
High Efficiency



KEWANEE-ROSS CORPORATION

Division of American Radiator & Standard Sanitary Corporation

KEWANEE, ILLINOIS



EXHIBIT

14 3/1/85

(June 1952)

The **VERSATILE** **KEWANEE** SQUARE-HEAT TYPE "R" BOILER

12 SIZES . . . 216,000 TO 1,200,000 BTU HOURLY
900 TO 5,000 SQ FT STEAM . . . 1,440 TO 8,000 SQ FT WATER

Never before has a boiler been built . . . not even by Kewanee . . . which has the versatility of KEWANEE SQUARE-HEAT. It's ideal for any medium size building . . . office or store building, school, motel, small factory or large mansion.

Offices—Showrooms

Square-Heat burns any fuel . . . Oil, Gas or Coal . . . with "top" efficiency, and a change from one to another, or from mechanical to hand firing or back again can be made quickly and inexpensively.

Whether teamed with radiant base-boards, wall, floor or ceiling coils or panels, convectors or conventional radiators, Kewanee Square-Heat Boiler provides a healthy steel heart for the system. Like all Kewanees it can be pushed far beyond rated capacity and

continue to operate at full efficiency.

The result of over 80 years of boiler building experience, Square-Heat brings to medium size buildings that heating dependability and economy for which Kewanee Boilers have long been famous.

Square-Heat Boilers follow to the last detail all boiler code requirements of A.S.M.E. and S.B.I. . . . in addition, the name Kewanee guarantees performance well above any code requirements.

Schools

Apartments

Large Homes

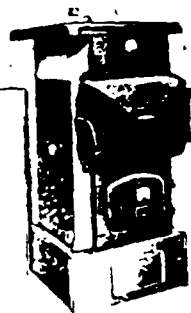
Factories

SMARTLINE JACKETS

in its trim insulating steel jacket in two-one green baked enamel (the jacket being optional) it has "eye appeal" plus

Heavy insulation with a one inch layer of Fiberglas keeps heat inside the boiler, reduces heat loss and helps save fuel.

Easily Installed at Any Time



Tailormade to fit the 12 sizes, the Smartline Jacket can be quickly assembled and installed on a new job or on a boiler already installed without disconnecting any of the piping. Insert a dozen self-tapping sheet metal screws and the jacket is on.



FOR OIL, GAS OR STOKER

Kewanee Square-Heat is correctly designed for "top" efficiency whether fired mechanically or by hand. Burners may be mounted from front or rear and the boiler is adaptable for stoker firing from front, rear or either side.

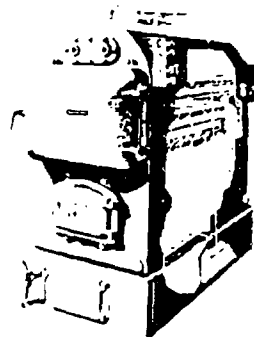
An important feature is the ease with which Square-Heat can be switched from mechanical to hand firing, or back again.

FOR HAND-FIRED COAL

Kewanee Square-Heat Boiler is flexible in every respect. It operates "on the job" at very high efficiencies with hand-fired coal as well as other fuels.

Generous size fire and ash doors and convenient shaker-arm grate assembly, make it easy to care for. Firedoor with secondary air slides is furnished with boilers to be stoker or hand-fired.

For further information on Square-Heat for hand firing, contact your local Kewanee Sales office.



SQUARE-HEAT Over...

One glance at its husky shell tells of extra sturdiness. Then *look inside the boiler* and see the many features that pack so much efficiency into comparatively small space.

At every level of its rated capacity *even at loads far above normal ratings* Square-Heat operates at full efficiency. Hydrostatically tested at 60 pounds it operates at up to 15 lbs per sq in steam or 30 lbs hot water.

Spinner Blades in oil-gas boilers 3R1 to 3R8 inclusive... swirl hot gases against the tube walls assuring maximum heat transfer to the boiler water.

Well-insulated sturdy cast iron Doors. Precision ground and sealed with asbestos rope gasket for permanent gas tight fit. Observation opening with adjustable hinged cover for secondary over-fire air.

Extra substantial Steel Base can be reversed for firing from front or rear.

Domestic and Water Heater Coil fabricated in bronze fittings mounted on steel plate with locknuts and rubber gaskets.

Large, High Steam Space assures ample reserve of dry steam.

Reversible Smokebox may be used with either top or rear smoke outlet.

Longer gas travel through two pass tubes... a plus value in secondary heating surface and assures greater fuel savings.

Large, High Firebox provides plenty of space for complete and economical burning of fuel.

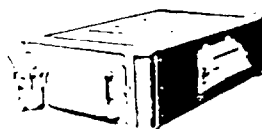
Rapid Circulation in wide, free waterways sweeps steam bubbles up without complication to the unbroken release area of water line.

Shell—extra heavy quality steel plate for strength and dependability.

EXTRA HIGH BASES FOR MECHANICAL FIRING

For mechanical firing—oil, gas or stoker—specifications often call for higher bases. To meet this demand, bases of greater height (20" and 30") are now available at extra cost when specified.

The standard height for all Square-Heat bases remains 14". The 20" and 30" bases are shown in the cutaway picture below. It consists of Rocking Grates with removable Bars, Lever and Sucker Arm with handle. Cast Iron Front Panel with Ash Pit Door, Steel Base, Rear and Side Panels and Side Drain Pouch.



REVERSIBLE SMOKEBOX

This exclusive Kewanee development makes it unnecessary to know whether rear or top smoke outlet will be used when ordering the boiler.

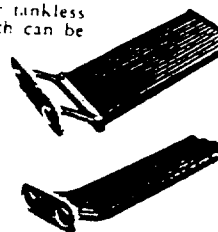
To change the position of the smoke outlet from rear to top, or vice versa, simply remove the eight bolts from the angle sheet forming the outlet and adjacent side, reverse and bolt into place.



DOMESTIC HOT WATER... ALL YEAR 'ROUND!

Every Kewanee Square-Heat Boiler is arranged for easy installation of indirect Water Heating Coils (either tankless or storage tank type) which can be fitted at any time by simply removing coil opening cover plate and bolting coil in place.

For Gravity Circulation with Storage Tank, check the left-hand table below. For Instantaneous Flow, see right-hand table.



Square-Heat Boilers have openings each side for external Water Heaters. Domestic Water Heater with 1 1/2" A.I. 3R Series have opening for indirect Water Heating Coil on Water Heater side.

For GRAVITY Flow at 120° F. and 3 hours. INSTANTANEOUS Flow at 180° F. and 180° Boiler Water.

Boiler	Coil	Capacity Gals. per Hr.	Surface Sq. Ft.	Coil	Capacity Gals. per Hr.	Surface Sq. Ft.
3R1	SPS 21	100	80	TON 1	220	37
3R2	SPS 22	120	96	TON 2	280	47
3R3	SPS 23	140	112	TON 3	350	58
3R4	SPS 24	160	128	TON 4	420	70
3R5	SPS 25	180	144	TON 5	490	82
3R6	SPS 26	200	160	TON 6	560	94
3R7	SPS 27	220	176	TON 7	630	106
3R8	SPS 28	240	192	TON 8	700	118
3R9	SPS 29	260	208	TON 9	770	130
3R10	SPS 30	280	224	TON 10	840	142

Capacities above are maximum ratings for each boiler. Smaller sizes may be substituted for less hot water capacity. Inlet and Outlet same size for pipe top 1" or TON and 1 1/2" on ODN tankless and 1 1/2" on DR5 & DR6 storage tank coils and 1" on SR5 & SR8.