

Donkey Boiler — as per tracing annexed. —

This is a common tubular Boiler with one furnace and 70 tubes $2\frac{3}{4}$ " diameter. The top & bottom are circular and the sides are flat, stiffened vertically by four angle iron bars $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{9}{16}$ on each side and riveted to the shell, and transversely by 12 double nutted stays $1\frac{1}{2}$ " in dia. — It was tested to 120 lbs hydraulic pressure & found tight and without deformations on the sides. It is intended to work it up to 50 lbs pressure. — The width is $66\frac{3}{8}$ " by $7\text{ ft } 4\frac{1}{2}"$ long. All the plates of the shell are $\frac{5}{8}$ " thick and the joints are double riveted lap with $\frac{7}{8}$ " rivets — 3" pitch — $5\frac{1}{4}"$ lap — The percentage of strength is 64 —

The working pressure of top & bottom (circular) is 98 lbs.

The stays in combustion chamber are $\frac{9}{8}$ " dia. out, or rather under 1" clear, with nuts, the pitch is 10×10 " and the plates are $\frac{1}{2}"$ thick

The working pressure of the stays is 46 lbs

plates $7\frac{1}{2}$ lbs

The stays in the steam space are $1\frac{1}{2}"$ dia with double nuts. and the maximum pitch is 15" & the thickness of the plates $\frac{5}{8}"$

The working pressure of the stays is 48 lbs.

plates 62 lbs — 20% = 50 lbs.

Furnace — Dia $38\frac{3}{4}"$ x $4\text{ ft } 10"$ long of $\frac{1}{2}"$ plates in one ring with a double riveted lap joint of $\frac{7}{8}$ " rivets x 3" pitch

Working pressure of furnace 120 lbs —

There are two locomotive safety valves $1\frac{7}{8}"$ dia, loaded by means of a lever & spring.

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