

Muir Steel main Boiler N° 286. by Rankin & Blackmore
for Russell & Co's N° 605 Vessel

150 lb Working pressure.

Plate To $\frac{9.45 - 1.406}{9.45} \times 100 = 85.5$

Rivet To $\frac{5 \times 1.55 \times 1.45 \times 85}{9.45 \times 1.244} = 88.5$

Shell $\frac{22 \times 85.5 \times (21.5 - 2)}{204} = 180 \text{ lbs}$

Turnace $\frac{1259 (85 - 2)}{45.25} = 181 \text{ lbs}$

Condenser $\frac{135 \times 9^2}{61} = 180 \text{ lbs}$

Stays $\frac{1.46 \times 8000}{8 \times 7.625} = 232 \text{ lbs}$

Back $\frac{135 \times 10^2}{72} = 187 \text{ lbs}$

Stays $\frac{1.46 \times 8000}{7.68 \times 9.25} = 199 \text{ lbs}$

top $\frac{135 \times 11^2}{82.5} = 198 \text{ lbs}$

Stays $\frac{2.08 \times 9000}{7.45 \times 10.25} = 234 \text{ lbs}$

Girders $\frac{10860 \times 10^2 \times 1.625}{(34.6 - 7.75) 10.25 \times 34.6} = 181 \text{ lbs}$

Ends top $\frac{185 \times 19^2}{34.5} = 193 \text{ lbs}$

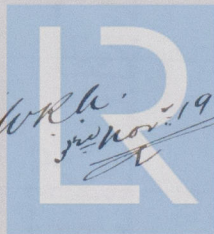
Stays $\frac{6.9 \times 10400}{17.5 \times 19.5} = 211 \text{ lbs}$

Front tube $\frac{140 \times (12 + \frac{1}{2})^2}{12.25} = 214 \text{ lbs}$

Back " $\frac{140 \times 12^2}{7.96} = 315 \text{ lbs}$

Boiler Back $\frac{135 \times 13^2}{121} = 189 \text{ lbs}$

Stays $\frac{2.08 \times 9000}{10.1 \times 9.25} = 201 \text{ lbs}$



W.R. & Co. 1909.
J. H. H. H.

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