

Rules: steel main Boilers N^o 320 by Rankin & Blackmore
for Russell 1679 h^o 655 vessel.

180 lbs working pressure.

Plate 70 $\frac{8.6875 - 1.219}{8.6875} \times 100 = 86$

Ends at top $\frac{175 \times 21^2}{416} = 186 \text{ lbs}$

Next 70 $\frac{5 \times 1.17 \times 1.45 \times 85}{8.6875 \times 1.125} = 88.75$

Stays $\frac{4.22 \times 10400}{20.5 \times 20} = 180 \text{ lbs}$

Shell $\frac{29 \cdot 22 \times 86 (182)}{28 \cdot 174} = 180 \text{ lbs}$

Front tube $\frac{140 \times (13 + \frac{9}{2})^2}{13.48^2} = 227 \text{ lbs}$

Furnace $\frac{1259 (9-2)}{46.25} = 191 \text{ lbs}$

Back $\frac{140 \times 12^2}{9^2} = 248 \text{ lbs}$

Combustion $\frac{135 \times 10^2}{74.7} = 181 \text{ lbs}$

Boiler Back $\frac{135 \times 12.5^2}{116} = 181 \text{ lbs}$

Stays $\frac{1.77 \times 8000}{74} = 191 \text{ lbs}$

Stays $\frac{2.39 \times 9000}{11.125 \times 8} = 242 \text{ lbs}$

Ends $\frac{10660 \times 10.25^2 \times 1.5}{(34.6 - 7.625) 9.5 \times 34.6} = 198 \text{ lbs}$

$\frac{10660 \times 8.625^2 \times 1.5}{(34.6 - 7.625) 7 \times 34.6} = 183 \text{ lbs}$

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