

Mult. Steel Main Bolts 12" 324 by Rankin & Blackmore for
 Russell 1697 h. 659 vessel.

180 lbs "Working pressure."

Plate % $\frac{9.781 - 1.375}{9.781} \times 100 = 85.9$

ends at top. $\frac{175 \times 19^2}{350} = 181 \text{ lbs}$

Rivet % $\frac{1.48 \times 5 \times 1.75 \times 85}{9.781 \times 1.3125} = 86$

" " Stays $\frac{6.3 \times 10400}{20.625 \times 16.1} = 193 \text{ lbs}$

Shell $\frac{22 \times 85.9 (22-2)}{198} = 191 \text{ lbs}$

Front tube $\frac{140 \times (12 + \frac{9}{2})}{13.25^2} = 217 \text{ lbs}$

Furnace $\frac{1259 (8.5-2)}{44.25} = 185 \text{ lbs}$

Back tube $\frac{140 \times 12^2}{9.29} = 233 \text{ lbs}$

Comer Cur $\frac{135 \times 10^2}{742} = 183 \text{ lbs}$

Bolts Back $\frac{135 \times 13^2}{120} = 190 \text{ lbs}$

" " Stays $\frac{1.77 \times 8000}{9.18 \times 8} = 193 \text{ lbs}$

" " Stays $\frac{2.08 \times 9000}{10.125 \times 9.125} = 203 \text{ lbs}$

" " Girders $\frac{10660 \times 9.5 \times 1.625}{(33.625 - 7.5) 9.5 \times 33.6} = 187 \text{ lbs}$



© 2021
 W.R.H.
 20 Dec 1912
 [Signature]

Lloyd's Register
 Foundation

W661-0209