Rivet Steel Boiler by Mess Ross & Duncan (N° 807)
for Mess Ribson & 6? N° 75 Vessel.

160 lbs° Working Pressure.

Plate % $\dfrac{6.75 - 1}{6.75} \times 100 = 85.2$

Rivet % $\dfrac{5 \times .7854 \times 1.75 \times 85}{6.75 \times 1} = 86.4$

Shell $\dfrac{21 \times 85.2(16-2)}{156} = 161\,lbs$

Furnace $\dfrac{50 \times (200 \times 6875 - 72)}{40} = 167\,lbs$ Side stay tubes $\dfrac{7500 \times 1.86}{(11\tfrac{3}{4} \times 9) - 28.8} = 180$

Comb. Crus $\dfrac{135 \times 9^2}{7.75^2} \,\,\,\,\, 182\,lbs$ 166 lbs   Corner $\dfrac{7500 \times 1.86}{(11\tfrac{3}{4} \times 10\tfrac{3}{4}) - 22} = 133$

" Stays $\dfrac{1.48 \times 8000}{7.75^2} = 197\,lbs$

Ends $\dfrac{9000 \times 6.5^2 \times 2}{(27.75 - 2.75)7.75 \times 27.75} = 177\,lbs$

Ends top $\dfrac{185 \times 15^2}{240.5} = 170\,lbs$

" Stays $\dfrac{4.22 \times 10000}{15 \times 16} = 175\,lbs$

Front tube $\dfrac{140 \times (12 + \tfrac{8}{2})^2}{14.5^2} = 170\,lbs$

Back " $\dfrac{140 \times 12^2}{10.125^2} = 195\,lbs$

Stay tubes $\dfrac{7500 \times 186}{9.5 \times 14 - 28.8} = 145\,lbs$

Boiler Back $\dfrac{135 \times (12 + \tfrac{8}{2})^2}{121} = 284\,lbs$

" Stays $\dfrac{2.07 \times 9000}{10.625 \times 8.875} = 197\,lbs$

$$\frac{106}{\frac{28}{78}}$$

$$\frac{61}{\frac{38}{43}}$$