

Circumferential seams

2.505

$$\text{Plate (back seam)} \quad \frac{3.88 - 1.375}{3.88} = 64.8$$

$$\text{Rivets - (front seam)} \quad \frac{23 \times 1.85 \times 2}{28 \times 3.43 \times 1.328} = 48.9$$

Longitudinal seams

1.875

$$\text{Plate} \rightarrow \frac{9.25 - 1.375}{9.25} = 85.2$$

$$\text{Rivets} \quad \frac{23 \times 1.48 \times 5 \times 1.875}{28 \times 9.25 \times 1.328} = 93$$

$$\text{Combined} \quad \frac{9.25 - 2.75}{9.25} + \frac{93}{5} = 10.3 + 18.5 = 88.8$$

$$\text{Shell} \quad \frac{40.5 \times 28 \times 85.2}{2.75 \times 195} = 180$$

$$\text{Furnaces} \quad \frac{480 \times 16}{42.06} = 182$$

$$\text{Top ends} \quad \frac{96 \times 1681}{441 + 441} = 183$$

$$\text{Front tube plate (w w space)} \quad \frac{72 \times 676}{192.51 + 74.39} = 182$$

$$\text{Back tube plate} \quad \frac{38 \times 484}{9.75^2 \times (95.06)} = 193$$

$$\text{Girders} \quad \frac{371 \times 90.25 \times 56}{37.625 \times 9.5 \times 28.5} = 183$$

$$\text{CCs top and sides} - \frac{75 \times 420.25}{83.25 + 90.25} = 182$$

$$\text{Backs} \quad \frac{75 \times 400}{90.25 + 76.56} = 180$$

$$\text{Lower back} \quad \frac{86 \times 529}{172.25 + 76.56} = 182$$

$$\text{Main stay - 3"} \quad \frac{78.522}{23 \times 17} = 200$$

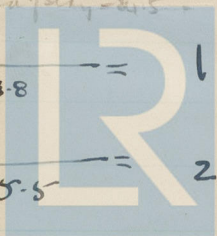
$$\text{Screw stay (15/8)} \quad \frac{15214}{86.5} = 176$$

$$\text{" (13/4)} \quad \frac{18144}{83.4 \times 11.31} = 183$$

$$\text{" (17/8)} \quad \frac{21332}{73.4 \times 12.31} = 223$$

$$\text{(2") corners} \quad \frac{24777}{11.31 \times 12.31} = 177.5$$

Calculations for original plan



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