

15690 Iron.

S. S. Dunrobin Castle

Rev 20/1/76

No. Size and Description of Boilers

Two, Round, Horizontal, 13' 0" dia. x 16' 0" long, with 3
Lurnaces in each end, fired fore & aft, and Superheater,
Working pressure 60 lbs

Shell plating $\frac{1}{16}$ " 5 plates in the circumference and 5 widths
in the length. Circumferential joints lapped double riveted
(Zigzag) rivets 1" dia. x $3\frac{1}{2}$ " pitch. Longitudinal joints lapped, treble
riveted, rivets 1" dia x $3\frac{3}{4}$ " pitch. End plating attached to
angle irons 5" x 5" x $\frac{1}{8}$ " & double riveted. Manholes have rings fitted

$$\text{Formulae } \frac{570 \cdot 20 \times 1 \cdot 75 \times 73\%}{154 \cdot 25 \times 6 \cdot 5} = 65 \text{ lbs}$$

Combustion Chamber plating $\frac{1}{16}$ " the top is supported by screws
passing through H. bearers 1 1/8" dia 7×8 " pitch. Screw stays 1"
dia, $7 \times 7\frac{3}{4}$ " pitch = 4173 lbs per inch.

$$\text{Formula for flat plates } \frac{100 \times 64}{574 \cdot 25} = 118 \text{ lbs}$$

Lurnaces 6' 1 1/2" long x 3' 1" dia. plating $\frac{1}{16}$ " butt joints fitted with
double straps & riveted to front plate which is flanged

$$\text{Formula for Tubes } \frac{89600 \times 25}{6 \cdot 125 \times 37} = 98 \text{ lbs}$$

Tube plates $\frac{1}{16}$ " protected by 80 tubes 2 1/2" dia. in Centre Chamber
14 of which are stay tubes, and 78 in side Chamber 12 of which
are stays

Longitudinal Stays 1 1/8" dia fitted diagonally crossing each other $13\frac{1}{2}$ "
x $13\frac{1}{2}$ " pitch, & attached to double angle irons. 5" x 5" x $\frac{1}{8}$ " = 3962 lbs

Superheater, Round Vertical 9' 0" dia. x 12' 0" high, with 4 tubes 3 1/2"
dia. which have 6 anticollapsing rings fitted round them plating
 $\frac{1}{16}$ " double & treble riveted.

Direct Spring loaded Safety Valves are fitted 5 3/4" dia,
accumulated pressure attained 64 lbs

James Hollison
Glasgow Jan^y 19th 1876
Glasgow Register
Foundation