

Steam Ship "Cartago Nova,"

15578 Iron
Riv 3/12/75

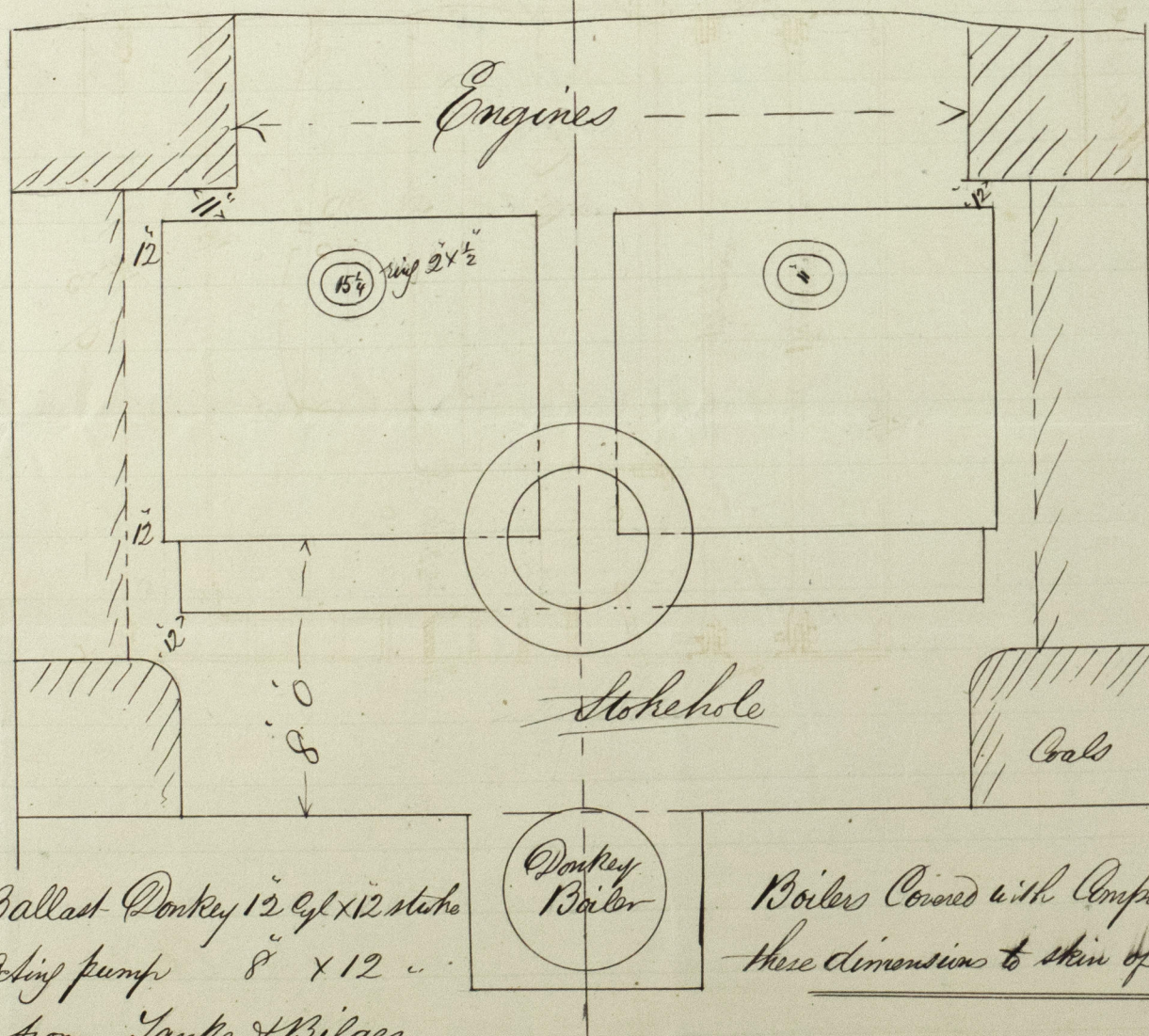
Diameter of Boilers 10' 9"
Thickness of shell plates $\frac{13}{16}$ & $\frac{3}{4}$ "
Description of riveting. double
Pitch of rivets 3"
Lap of plating $5\frac{1}{4}$ "
Diameter of rivets 1"
Number of Furnaces in each Boiler 2.
Diameter of Furnaces 3' 0"
Length of Furnaces 6' 6"
Thickness of Furnace plates $\frac{1}{2}$ "
Joint of Furnace plates. lapped and single riveted.
Length of fire grate 5' 3".
Whether furnaces are strengthened with rings. none.
Back uptake plates $\frac{1}{2}$ " thick screw stayed 9' 8" x 14' diam. 3970 lbs
Ends $\frac{9}{16}$ " thick bolt stayed 16' x 15' x 17' square = 6000 lbs
Flat plates where screw stayed = 88 lbs working pressure Ends = 66"
Tube plates stayed with stay tubes screwed into back tube plates
with nuts in flame box but none inside. Nuts on each side
of front tube plate.

$$\text{Shells} = \frac{51520 \times 1\frac{1}{2} \times 66}{128 \times 6.5} = 66 \text{ lbs working pressure, at } \frac{3}{4} \text{ thick}$$

$$\text{Furnaces} = \frac{89600 \times \frac{1}{2}}{6\frac{1}{2} \times 36} = 95 \text{ " " "}$$



William Allison,
Engineer Surveyor,
Nov. 29th 75,



Boilers Covered with Composition
these dimensions to skin of Boilers

Technical drawing of a boiler section, showing a plan view and a cross-section.

The plan view (top) shows a rectangular grid of tubes, with dimensions 16 inches by 16 inches. The tubes are arranged in a 4x4 grid of 16x16 tubes.

The cross-section (bottom) shows a circular boiler with a diameter of 3 feet 0 inches. The drawing is labeled "Tubes 3/4 inch dia" and "4 1/4 inch pitch".

