

Shipbuilder Priestman No. 97 Engineer R. H. Ho No. 228



WORKING PRESSURE 180 lbs.

TENSILE RANGE Shell = 28 tons Stays = 27 tons

% Plate	$\frac{P-d}{P} \times 100$	$\frac{(8-1.28125)}{8} \times 100$	<u>89.8</u>	Back Bottom with doubling.	$\frac{c \times (t + \frac{t}{2})^2}{\frac{1}{2} (P^2 + P^2)}$	$\frac{135 (12 + \frac{10}{2})^2}{\frac{1}{2} (13\frac{1}{2}^2 + 8\frac{5}{8}^2)}$	<u>292</u>
% Rivets.	$\frac{a \times \text{No.} \times 1.75 \times 85}{P \times t}$	$\frac{1.2893 \times 4 \times 1.75 \times 85}{8 \times 1.125}$	<u>85.23</u>	Girders.	$\frac{c \times d^2 \times t}{(L - P \times \text{dis. apart} \times L)}$	$\frac{9900 \times 8\frac{1}{2}^2 \times 1.5}{(30.6 - 8.5) \times 8.5 \times 30.6}$	<u>186</u>
Shell.	$\frac{c(t-2)}{D} \%$	$\frac{21 \times \frac{28}{32} (18-2)}{162} \times 83.98$	<u>180.6</u>	Plain Furnaces.	$\frac{50(300T - L)}{D}$		
Front and Back Tops.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$\frac{17.5 \times 18.5^2}{\frac{1}{2} (17\frac{1}{2}^2 + 16\frac{1}{2}^2)}$	<u>183</u>	Do. where length exceeds 120 times plate.	$\frac{1,075,200 \times T^2}{L \times D}$		
Front Tube Plate.	$\frac{c \times t^2}{P^2}$	$\frac{140 \times 12\frac{1}{2}^2}{(13\frac{1}{2} + 8\frac{5}{8})^2}$	<u>187</u>	Patent.	$\frac{1259(T-2)}{D}$	$\frac{1259 \times (8-2)}{42.25}$	<u>179</u>
Front Tube Plate with doubling.	$\frac{c \times (t + \frac{t}{2})^2}{P^2}$	$\frac{140 (12.5 + \frac{10}{2})^2}{14^2}$	<u>218</u>	Main Stays.	$\frac{c \times a}{\text{surface supported}}$	$\frac{10000 \times 6.1}{322 \text{ D"}}$	<u>189</u>
Back Tube Plate.	$\frac{c \times t^2}{P^2}$	$\frac{140 \times 12\frac{1}{2}^2}{10.8125^2}$	<u>187</u>	180H 1 $\frac{1}{8}$ " Screw Stays.	$\frac{c \times a}{\text{surface supported}}$	$\frac{7500 \times 2.43}{97 \text{ D"}}$	<u>188</u>
Compress. Tube Plate.	$\frac{c(D-d) \times t}{W \times D}$			1 $\frac{3}{4}$ " Screw Stays.	$\frac{c \times a}{\text{surface supported}}$		
C Chbr. Plate Sides.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$\frac{135 \times 10^2}{8\frac{5}{8}^2}$	<u>187</u>	140H 1 $\frac{1}{8}$ " Screw Stays.	$\frac{c \times a}{\text{surface supported}}$	$\frac{7500 \times 1.786}{73.3 \text{ D"}}$	<u>183</u>
C. Chbr. Plate Top.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$\frac{135 \times 10^2}{8\frac{5}{8}^2}$	<u>187</u>	Stay Tubes.	$\frac{A \times c}{\text{surface supported}}$	$\frac{2.3 \times 7500}{(13\frac{1}{2} \times 9) - (8.3 \times 3)}$	<u>181</u>
C. Chbr. Plate Backs.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$\frac{135 \times 10^2}{\frac{1}{2} (8\frac{5}{8}^2 + 8\frac{5}{8}^2)}$	<u>184</u>				
Back Bottom.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$						



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