

Shipbuilder *Pickersjills* Lows No. 132Engineer *J. Dickinson* Lows No. 545

## TENSILE RANGE

Shell  
Stays =28  
27.

tons

32

tons.

LBS.

LBS.

% Plate.	$\frac{P-d}{P}$	$= \frac{8\frac{15}{16} - 1\frac{9}{16}}{8\frac{15}{16}} =$	85.3	Back Bottom with doubling.	$\frac{c \times \left(t + \frac{t}{2}\right)^2}{\frac{1}{2} (P^2 + P^2)}$	$= \frac{135 \left(11 + \frac{10}{2}\right)^2}{\frac{1}{2} (12^2 + 9\frac{1}{2}^2)} =$	286
% Rivets	$\frac{a \times \text{No.} \times 1.75 \times 85}{P \times t}$	$= \frac{1\frac{9}{16} \times 5 \times 1.75 \times 85}{8\frac{15}{16} \times 1\frac{3}{32}} =$	94.4	Girders.	$\frac{c \times d \times t}{(L-P) \times \text{dist. apart.}}$	$= \frac{9900 \times 1\frac{1}{4} \times 2}{(30\frac{3}{8} - 9\frac{1}{2}) \times 9 \times 30\frac{3}{8}} =$	183
Shell.	$\frac{c(t-2)\%}{D}$	$= \frac{21 \times 17\frac{1}{2} \times .53 \times 28}{180 \times 27} =$	180.5	Plain Furnaces.	$\frac{50(300T-L)}{D}$	$= \frac{50(300 \times \frac{3}{4} - 83\frac{3}{8})}{39} =$	188
Front and Back Tops.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$= \frac{185 \times 17^2}{\frac{1}{2} (17\frac{3}{8}^2 + 16\frac{1}{2}^2)} =$	181	Do. where thickness exceeds 120 times plate.	$\frac{1,075,200 \times T^2}{L \times D}$	$=$	
Front Tube Plate.	$\frac{c \times t^2}{P^2}$	$= \frac{140 \times 15^2}{13\frac{3}{4}^2} =$	180	Patent.		$=$	
Front Tube Plate with doubling.	$\frac{c \times \left(t + \frac{t}{2}\right)^2}{P^2}$	$=$		Main Stays.	$\frac{c \times a}{\text{surface supported}}$	$= \frac{10000 \times 5.57}{17\frac{3}{8} \times 16\frac{1}{2}} =$	189
Back Tube Plate.	$\frac{c \times t^2}{P^2}$	$= \frac{140 \times 14^2}{11^2} =$	226	1 $\frac{1}{4}$ " Screw Stays.	$\frac{c \times a}{\text{surface supported}}$	$= \frac{7500 \times 2.35}{9\frac{1}{2} \times 9\frac{9}{16}} =$	196
Compress. Tube Plate.	$\frac{c(D-d) \times t}{W \times D}$	$= \frac{1600(42-293)14}{31\frac{7}{8} \times 4\frac{1}{2}} =$	247	1 $\frac{1}{2}$ " Screw Stays.	$\frac{c \times a}{\text{surface supported}}$	$= \frac{7500 \times 2.69}{9\frac{1}{2} \times 10\frac{9}{8}} =$	200
C. Chbr. Plate Sides.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$= \frac{135 \times 11^2}{9\frac{1}{2}^2} =$	181	Stay Tubes.	$\frac{A \times c}{P^2}$	$= \frac{225 \times 7800}{(11\frac{3}{8} \times 9) - 3\frac{1}{4} \times 3} =$	224
C. Chbr. Plate Top.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$=$				$=$	
C. Chbr. Plate Backs.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$= \frac{135 \times 11^2}{\frac{1}{2} (9\frac{1}{2}^2 + 9\frac{1}{4}^2)} =$	186			$=$	
Back Bottom.	$\frac{c \times t^2}{\frac{1}{2} (P^2 + P^2)}$	$=$				$=$	

W172-0124