



NO	CONSTRUCTED UNDER THE BOARD OF SUPERVISING INSPECTORS DEPT OF COMMERCE & LLOYDS RULES FOR 200LBS WORKING PRESSURE			
DESCRIPTION	U.S. RULES	LLOYDS RULES		
SHELL	$\frac{1}{16}$ P. $\frac{60000 \times 1.59113}{6 \times 92} = 201^*$	P. $\frac{21048(3 \times 5 - 2) \times 84.8}{191.7375} = 217^*$	BOILER DATA	ONE BOILER HEATING SURF
FURNACE	$\frac{21}{32}$ P. $\frac{156000 \times 65425}{40 \times 3.75} = 204^*$	P. $\frac{12584 \times 191.7375}{59.3125} = 204^*$	TUBES	2571/5
TOP HEAD PLATE	$\frac{1}{8}$ P. $\frac{175 \times 18^2}{270} = 210^*$	P. $\frac{175 \times 18^2}{270} = 210^*$	FURNACES	175 #
TOP HEAD	$\frac{1}{8}$ S. $\frac{6 \times 875 \times 16 \times 200}{40 \times 3.75} = 86.92^*$	P. $\frac{10400 \times 6.2126}{191.7375} = 239^*$	COMB CHAMB	264.6 #
TUBE PLATE	$\frac{3}{4}$ P. $\frac{(3.75 - 2.25) \times 16 \times 2000}{40 \times 3.75} = 205^*$	P. $\frac{3.75 - 2.25 \times 16 \times 112}{40 \times 3.75} = 212.8^*$	BACK TUBE PLATE	5.5 #
C.C. CROWN PLATE	$\frac{21}{32}$ P. $\frac{135 \times 10^2}{71.19} = 209^*$	P. $\frac{135 \times 10^2}{71.19} = 209^*$	TOTAL H.S.	3066 #
C.C. CROWN PLATE	$\frac{1}{4}$ S. $\frac{8 \times 875 \times 8.5 \times 200}{1.997} = 712.9^*$	P. $\frac{7500 \times 1.997}{875 \times 8.5} = 210^*$	GRATE SURF	66 #
WRAPPER PLATE	$\frac{21}{32}$ P. $\frac{120 \times 10^2}{54.125} = 244^*$	P. $\frac{100 \times 10^2}{54.125} = 203^*$	H.S. G.S.	46.4 #
WRAPPER STAYS	$\frac{1}{2}$ S. $\frac{8.5 \times 6 \times 200}{1.997} = 510.7^*$	P. $\frac{7500 \times 1.997}{8.5 \times 6} = 293^*$	CALORIMETER	13 #
C.C. BACK PLATE	$\frac{3}{4}$ P. $\frac{180 \times 18^2}{68.125} = 253^*$	P. $\frac{180 \times 18^2}{68.125} = 211^*$	G.S./CTL	5.07
C.C. BACK STAYS	$\frac{1}{4}$ S. $\frac{8.5 \times 9 \times 200}{8.947} = 680.5^*$	P. $\frac{7500 \times 1.997}{8.5 \times 9} = 220^*$	LENGTH OF GRATE	5 FT 6
CROWN GIRDERS	$\frac{1061}{16}$ P. $\frac{9174 \times 10^2 \times 2}{(41.5 - 8.5) \times 8.375 \times 3.45} = 212^*$	P. $\frac{9174 \times 10^2 \times 2}{(40 - 8.5) \times 8.375 \times 40} = 247^*$		
BOTTOM COVER CH	$\frac{1}{2}$ S. $\frac{50(300 \times 1 - (2 \times 36.5))}{54.5} = 208^*$	P. $\frac{300 \times 1 - 40}{54.5} = 238^*$		
WIDE WATER SPACE FRONT	$\frac{1}{2}$	P. $\frac{140 \times 16^2}{54.5} = 212^*$		

TENSILE STRENGTH OF SHELL PLATES 60,000 TO 70,000 LBS
" " " CLANGES 60,000 TO 65,000 LBS
" " " GIRDERS 60,000 TO 70,000 LBS
WORKING PRESSURE 200^{PSI} PER SQ IN
WATER TEST 300^{PSI} " " IN
EVAPORATION 270 LBS OF WATER PER SQ FOOT
OF GRATE PER HOUR
3RD TWIN SAFETY VALVE, COMBINED AREA 19.24
FOR DETAIL OF BOTTOM HEAD
STAY SEE DWG "O-862-3

BLUE PRINTS

REV.	DATE	BY	CHKD.	DEPT.
NO	NO	NO	NO	NO
1-2				Les. Ins.
3-4				LAYERS

APPROVED

NAVY DEPT. U.S. STEEL CO.

SEPT 1920

NEW YORK

SUN SHIPBUILDING COMPANY
CHESTER, PENNA, U.S.A
ENGINEERING DEPARTMENT

15" 10 INS. DIA X 11 1/2" 1/2 BETH HEADS
S.E. SCOTCH BOILER
200 LBS WORKING PRESSURE

DRAWN BY J.B.
TRACED BY J.B.
CHECKED BY K.F.
DATE 26.11.20
SCALE 1" = 1 FT.
CHIEF ENGINEER

CHIEF DRAFTSMAN J. B. Phillips

APPROVED 16 Hous

DR 39-862-1

16 Hous