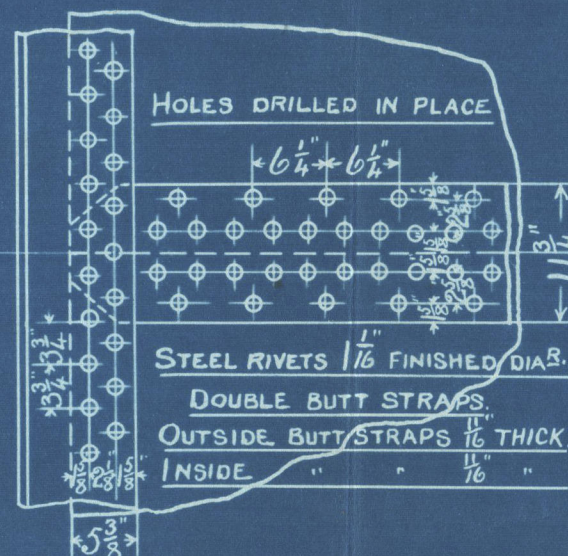


MINIMUM TENSILE STRENGTH OF SHELL PLATES & BUTT STRAPS = 28 TONS PER " "  
MAXIMUM " " " " " " " " " = 32 " "



MANHOLE 16" X 12"  
COMPENSATING RING 28" DIA.  
X  $\frac{3}{4}$ " THICK - DOUBLE RIVETED.  
POSITION NOT FIXED.

CIRCUM= SHELL	STEEL	$\frac{3}{4}$ "	THICK
STRAPS FOR DITTO	"	$\frac{11}{16}$ "	
UPPER END PLATE FRONT	"	$\frac{29}{32}$ "	
"	"	$\frac{29}{32}$ "	
"	BACK	$\frac{29}{32}$ "	
LOWER	"	$\frac{3}{4}$ "	
OUTER TUBE PLATE	"	$\frac{27}{32}$ "	
INNER	"	$\frac{11}{16}$ "	
FIREBOX BACKS	"	$\frac{9}{16}$ "	
FIREBOX SIDES & TOPS	"	$\frac{9}{16}$ "	
FIREBOX BOTTOMS	"	$\frac{9}{16}$ "	
"	GIRDERS. (2)	$\frac{11}{16}$ "	
FURNACES	"	$\frac{5}{8}$ "	

— CRATE SURFACE — 南  
FIREBARS 5'-0" IN TWO LENGTHS 43 $\frac{3}{4}$

WORKING PRESSURE - LLOYDS.			
PLATE SECTION.	$\frac{100(625-10625)}{625}$	"	83%.
RIVET SECTION.	$\frac{3 \times .886 \times 175 \times .85}{625 \times .75}$	"	84.3%
CIRCUM <sup>1</sup> SHELL.	$\frac{22(12-2)83}{148}$	"	123.3 LBS
END UPPER PLATES.	$\frac{185 \times 14.5^2}{17.5^2}$	"	127 "
" " " STAYS.	$\frac{3.76 \times 10400}{17.5^2}$	"	1276 "
OUTER TUBE PLATE.	$\frac{140 \times 13.5^2}{14.5^2}$	"	121.3 "
INNER " " "	$\frac{140 \times 11^2}{11.875^2}$	"	120.1 "
STAY TUBE (CORNERS).	$\frac{(8.946-6.777)7500}{(12 \times 12)-(2.25 \times 962)}$	"	132.9 "
" " (ORDINARY).	$\frac{(8.946-7.068)7500}{(14.375 \times 9.5)-(4 \times 962)}$	"	143.6 "
FIREBOX TOPS	$\frac{135 \times 9^2}{9^2}$	"	135 "
" SIDES	$\frac{135 \times 9^2}{\frac{1}{2}(9.5^2 + 8.5^2)}$	"	134.5 "
" BACKS	$\frac{135 \times 9^2}{9^2}$	"	135 "
" STAYS (ORDINARY)	$\frac{1.68 \times 6000}{9 \times 9}$	"	124.4 "
" " (MARGINAL)	$\frac{1.923 \times 7500}{11.75 \times 9}$	"	136.7 "
" " (THRO. GIRDERS)	$\frac{1.68 \times 6000}{9 \times 9}$	"	124.4 "
" GIRDERS.	$\frac{106600 \times 6.875^2 \times 1375}{(2975-9) \times 9 \times 29.75}$	"	124.6 "
FURNACES.	$\frac{1075200 \times 6.25^2}{89 \times 36.25}$	"	129.9 "

—MAIN BOILER N<sup>o</sup>2-12—  
—S.S. "KATHLEEN"— 16-2

— SCALE  $\frac{3}{4}$ " = 1 FOOT. —

0816  
22/1/12



Hall Russell & Co Ltd  
Boiler No 72  
Unrept No 11012  
for S.S. "Kathleen"



AGA 22-0132

