

SIERRA-SONOMA-VENTURA.

Donkey Boiler.

Steel Boiler 10 ft. Diameter by 10 ft. Long.
For 175 Lbs. Working Pressure.

United States and Lloyd's Rules.

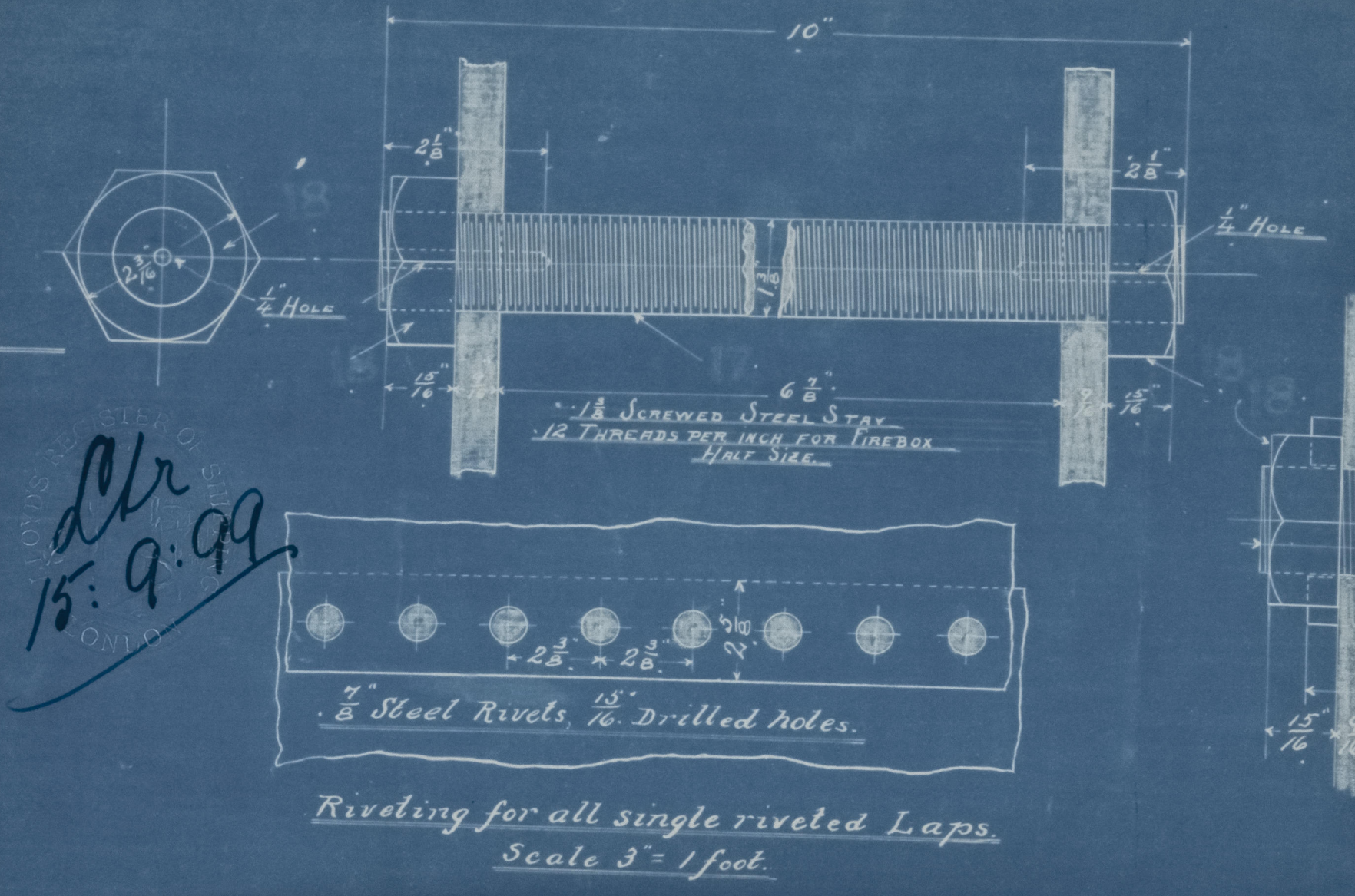
Scale 1" = 1 foot.

1. Thus for Engines 7th 188 and 189.

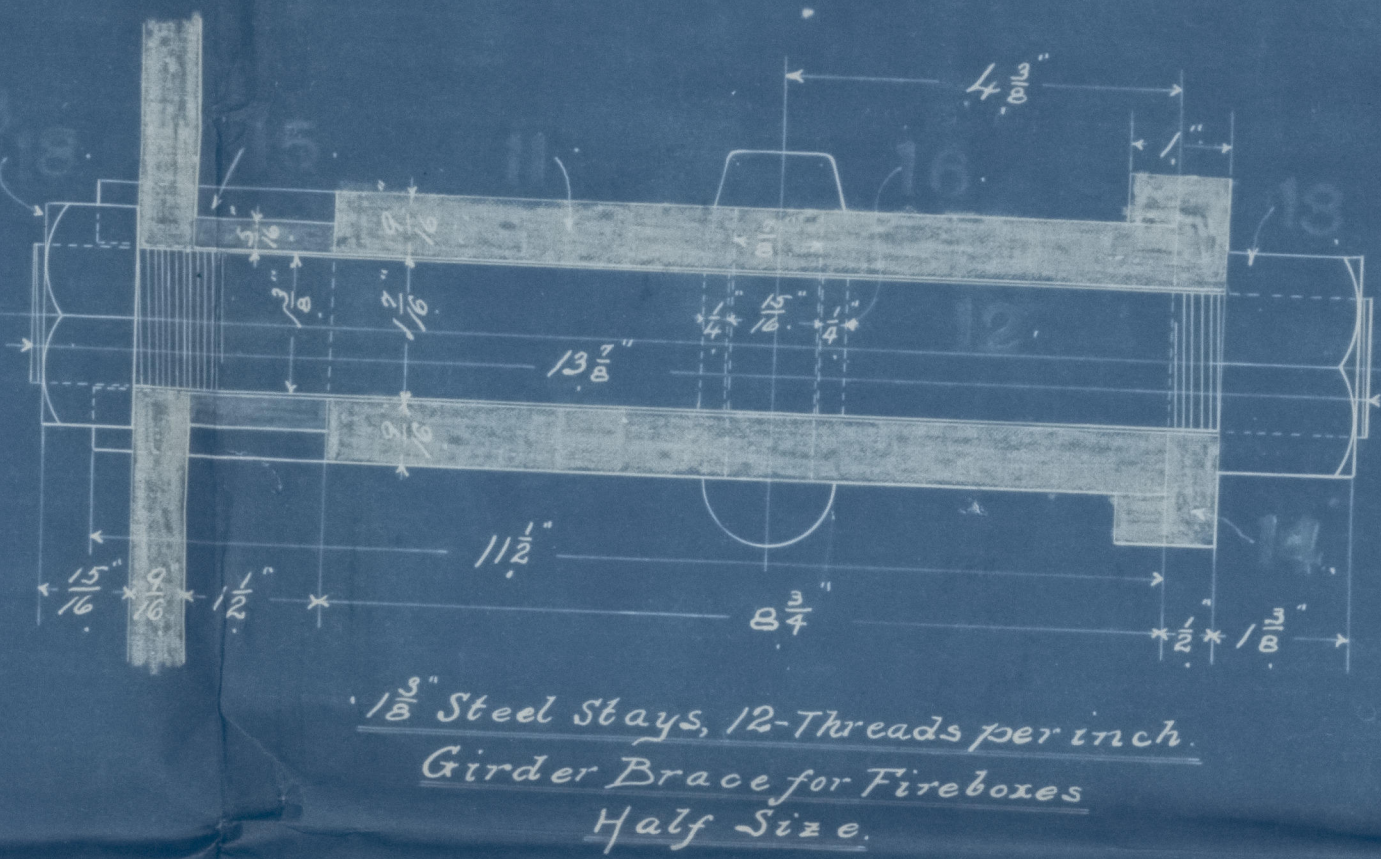
1. " " " 190 and 191.

1. " " " 192 and 193.

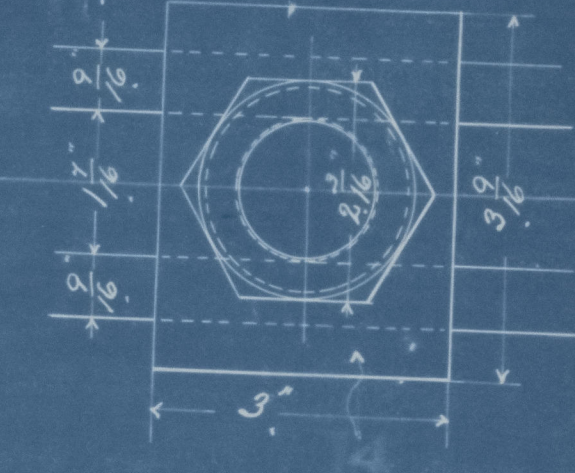
Plr
15.9.99



Riveting for all single riveted Laps.
Scale 3" = 1 foot.



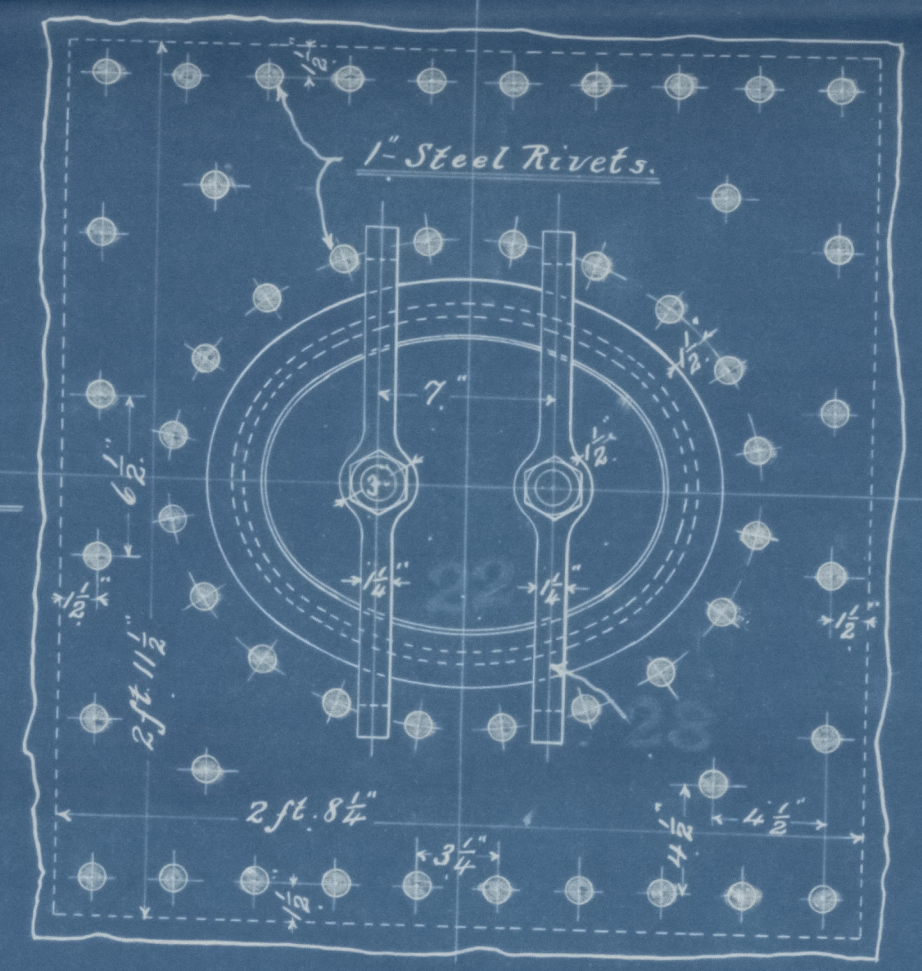
1/2" Steel Stays, 12-Threads per inch
Girder Brace for Fireboxes
Half Size.



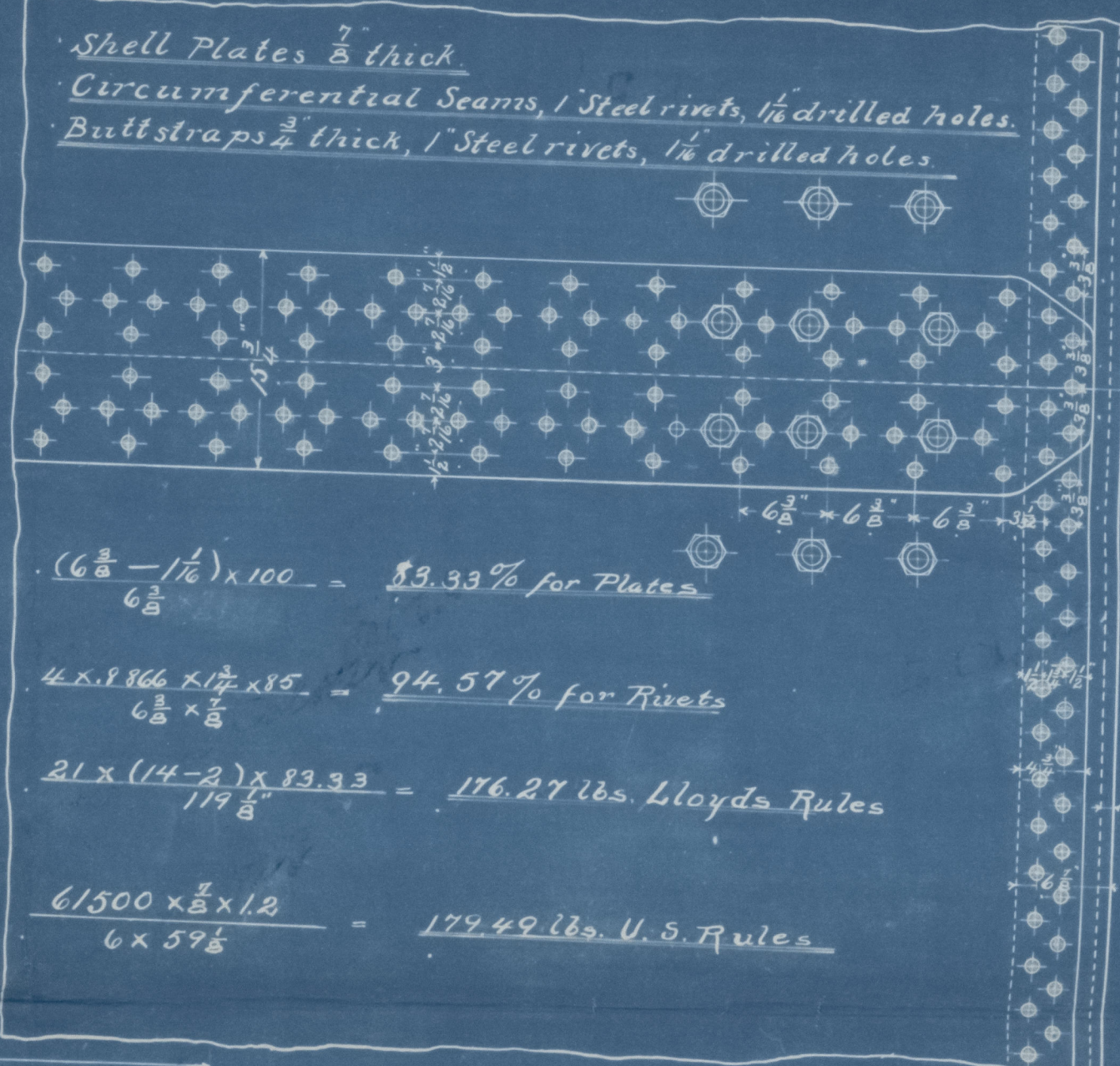
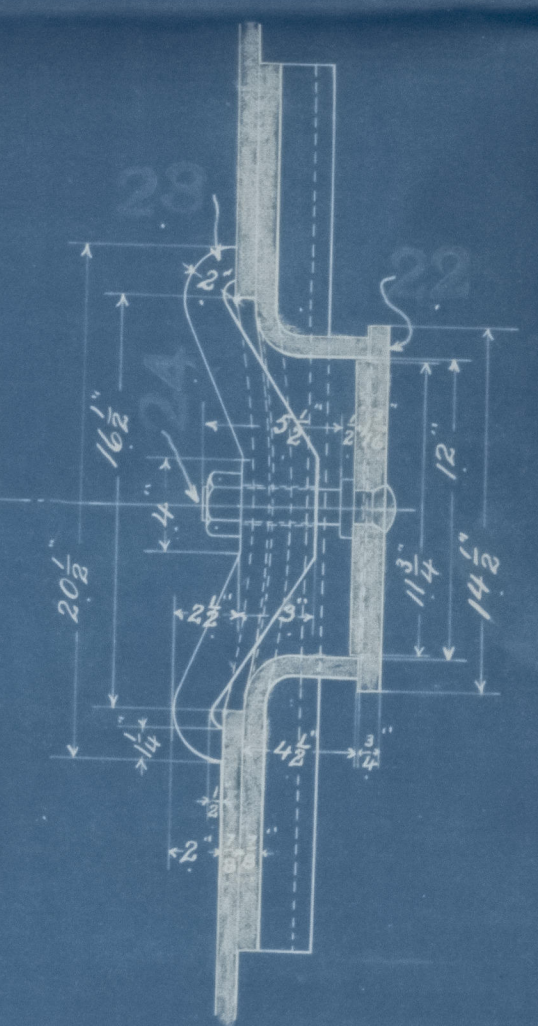
DETAIL OF BOILER TUBES
Half Size.

Heating Surface—
Tubes—592.06 Sq. ft. — Grate Bar 5 ft. long.
Furnace—67.16 " — Grate Surface 30 Sq. ft.
Comb. Chamber—104.25 " — Ratio 1 to 25.44.
Total—763.47 " —

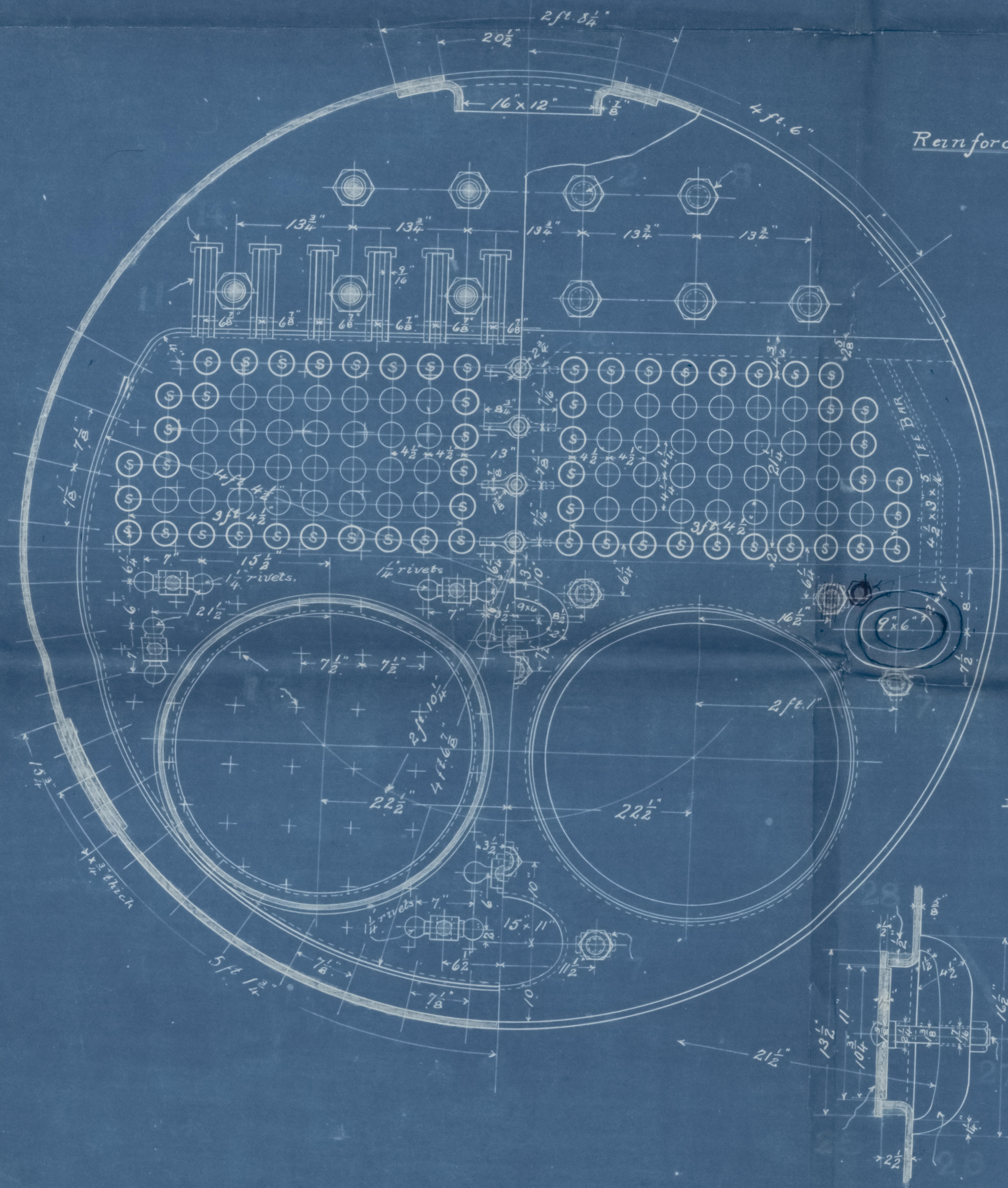
Draft one through tube = 4.381 Sq. ft. Capacity of Comb. Chamber = 91.83 Cu. ft.
Calorimeter 30 = 6.847 — Ratio to Grate Surface = $\frac{91.83}{30} = 3.061$ —



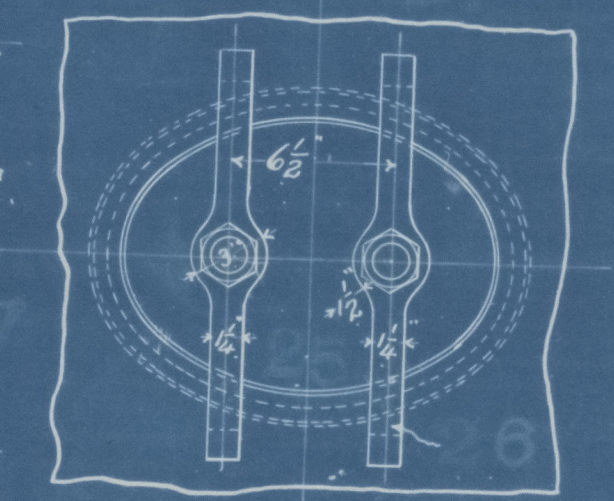
Reinforcement and Manhole Plate for Shell.
Scale 1 1/2" = 1 foot.



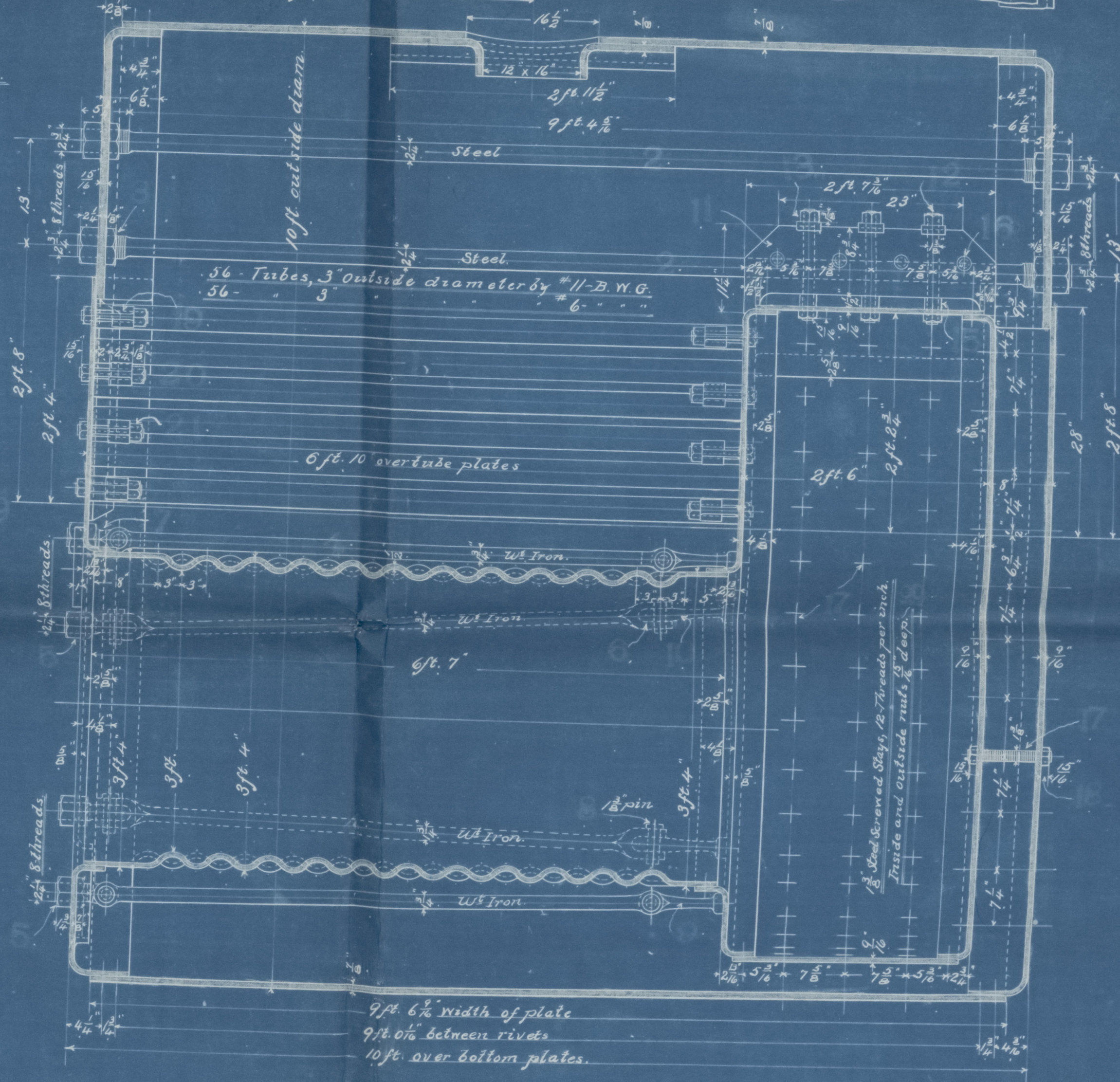
$(6\frac{3}{8} - \frac{1}{8}) \times 100 = 89.93\%$ for Plates
 $4 \times 1866 \times \frac{1}{8} \times 85 = 94.57\%$ for Rivets
 $21 \times (14 - 2) \times 89.93 = 116.27$ lbs. Lloyd's Rules
 $\frac{61500 \times \frac{1}{8} \times 18}{6 \times 578} = 174.49$ lbs. U.S. Rules.



9 x 6 Hand Hole Plate
Scale 1 1/2" = 1 foot.



15 x 11 Manhole Plate.
Scale 1 1/2" = 1 foot.



NUMBER OF PIECES FOR 1 BOILER				
NO.	NUMBER OF PIECES	DESCRIPTION	MATERIAL	REMARKS
112	3	TUBES {54-11 B.W.G. thick}	WROT IRON	Ordered out.
10	10	LONGITUDINAL STAYS 2 1/2\" diam	STEEL	"
40	24	NUTS {20-2 1/2\" DEEP}	WROT IRON	"
10	10	LONGITUDINAL STAYS 1 1/2\" diam	"	"
20	24	NUTS {10-1 1/2\" DEEP}	"	"
20	20	JAWS FOR STAYS 1 1/2\" diam	"	Die No 22
10	10	SCREWED ENDS FOR STAYS 1 1/2\" diam	"	" 60-3 1/2\" long
20	18	PINS FOR STAYS, 1 1/2\" diam	"	" 62.
8	8	CROWFEET FOR STAYS, 1 1/2\" diam	"	" 94-7\" Geo L
12	12	DOUBLE PLATE GIRDERS FOR FIREBOX TOP	STEEL	Ordered out.
36	18	SCREWED STAYS FOR FIREBOX TOP	WROT IRON	"
72	18	NUTS {36-1 1/2\" DEEP}	WROT IRON	"
36	36	WASHERS FOR FIREBOX GIRDERS	STEEL	"
36	36	THIMBLES FOR FIREBOX GIRDER STAYS	WROT IRON	"
48	48	THIMBLES FOR FIREBOX GIRDERS	"	"
232	18	SCREWED STAYS FOR FIREBOXES	STEEL	Ordered out.
464	18	NUTS {15-1 1/2\" DEEP}	WROT IRON	"
8	8	DOGS FOR TUBE SHEETS	"	Die No 55
8	18	SCREWED STAYS FOR TUBE SHEETS	STEEL	Ordered out.
16	18	NUTS {8-1 1/2\" DEEP}	WROT IRON	"
1	1	16 x 12 MANHOLE PLATE FOR SHELL	STEEL	Take from Stock #131-2
2	2	DOGS FOR "	WROT IRON	Die No 63
2	2	18 STUDS AND NUTS "	"	" 67-5 1/2\" long
1	1	15 x 11 FRONT MANHOLE PLATE	STEEL	Take from Stock #131-2
2	2	DOGS FOR "	WROT IRON	Die No 65
2	2	18 STUDS AND NUTS "	"	" 67-7 1/2\" long
1	1	2 x 2 RING FOR FRONT "	"	"
3	3	9 x 6 FRONT HAND HOLE PLATES	STEEL	Take from Stock #131-2
3	3	DOGS FOR "	WROT IRON	"
3	3	1 1/2\" STUDS AND NUTS "	"	Die No 16-5 1/2\" long
3	3	2 x 1 RINGS FOR "	"	"

THE PHILADELPHIA ENGINE DEPARTMENT.
— April 15th 1899.

THE PHILADELPHIA ENGINE DEPARTMENT.
No. 5277
Date April 15-1899

Plr
15.9.99

Darkey Boile.

Tw. Soc. Steamers N. 304-5-6.



Report N. 965-



© 2021

Lloyd's Register
Foundation