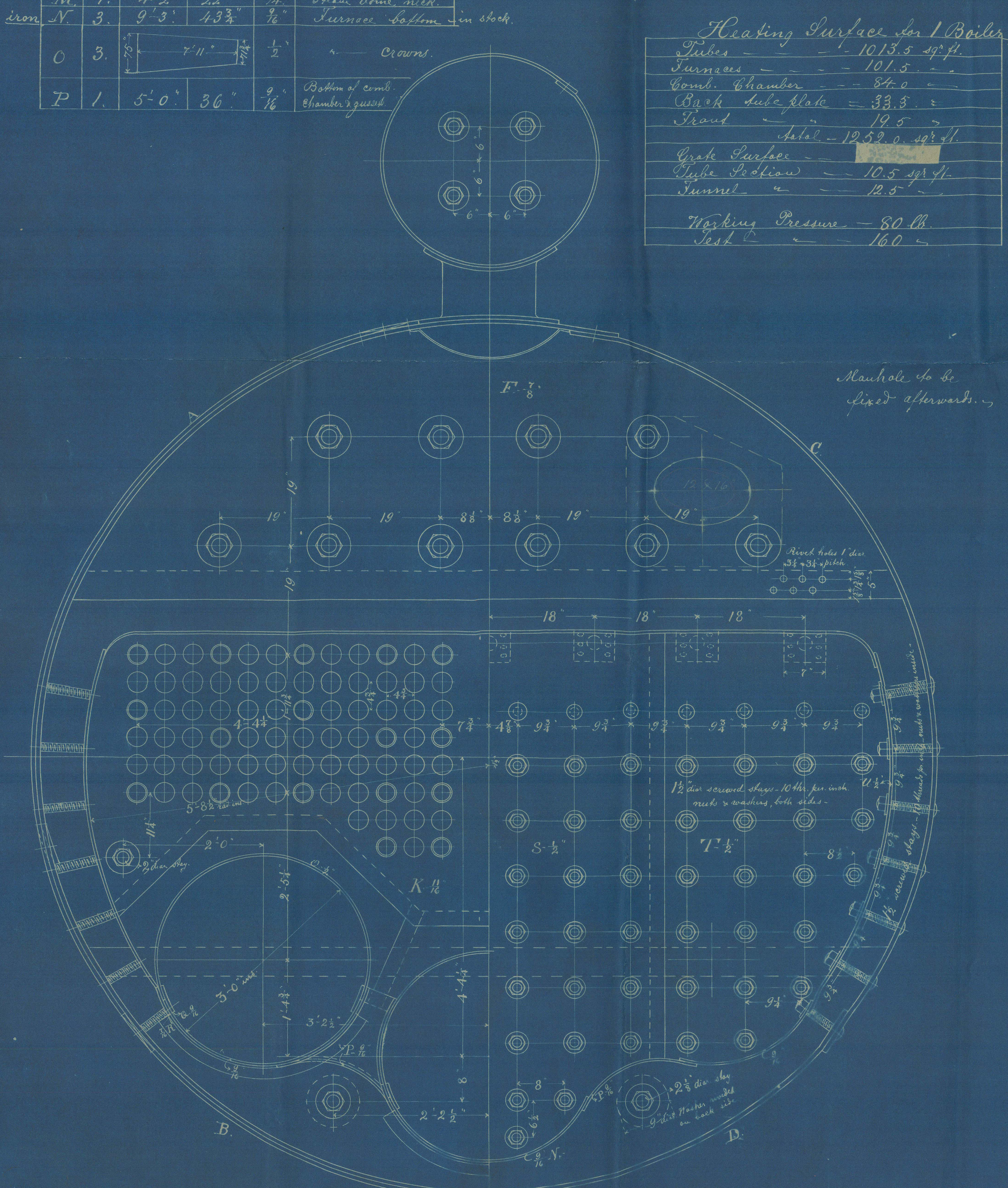


Steel Plates for 1 Boiler and 1 Dome									
Mark	N <sup>o</sup>	Length	Breadth	Thick	Position	Mark	N <sup>o</sup>	Length	Breadth
A	2	13'-5 3/4"	61"	3/8"	Shell water ring top	B	6	7'-9"	5'
B	1	13'-2 3/4"	61"	3/8"	Shell water ring top	C	1	13'-7 1/8"	61"
C	2	13'-7 1/8"	61"	3/8"	inner top	D	1	15'-1 1/8"	61"
D	1	15'-1 1/8"	61"	3/8"	inner top	E	1		
E	1				Front at top	F	1		
F	1				Back at top	G	1		
G	1				Back at bottom	H	2		
H	2				Turnace front	I	1		
I	1				Front Tube plate	K	1		
K	1				Back of Boiler in stock	L	1		
L	1				From dome neck in stock	M	1		
M	1				Turnace bottom in stock	N	3		
N	3				Crowns	O	3		
O	3				Bottom of comb. chamber & gusset	P	1		
P	1								

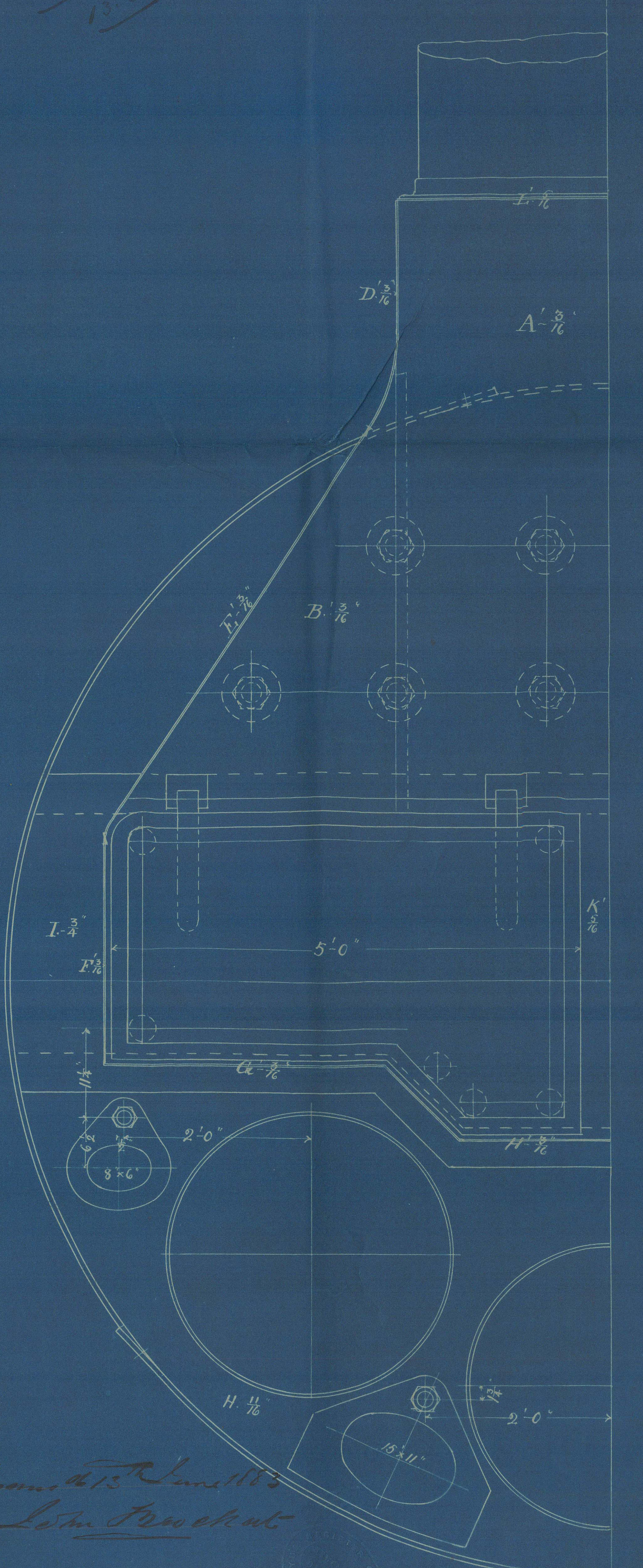
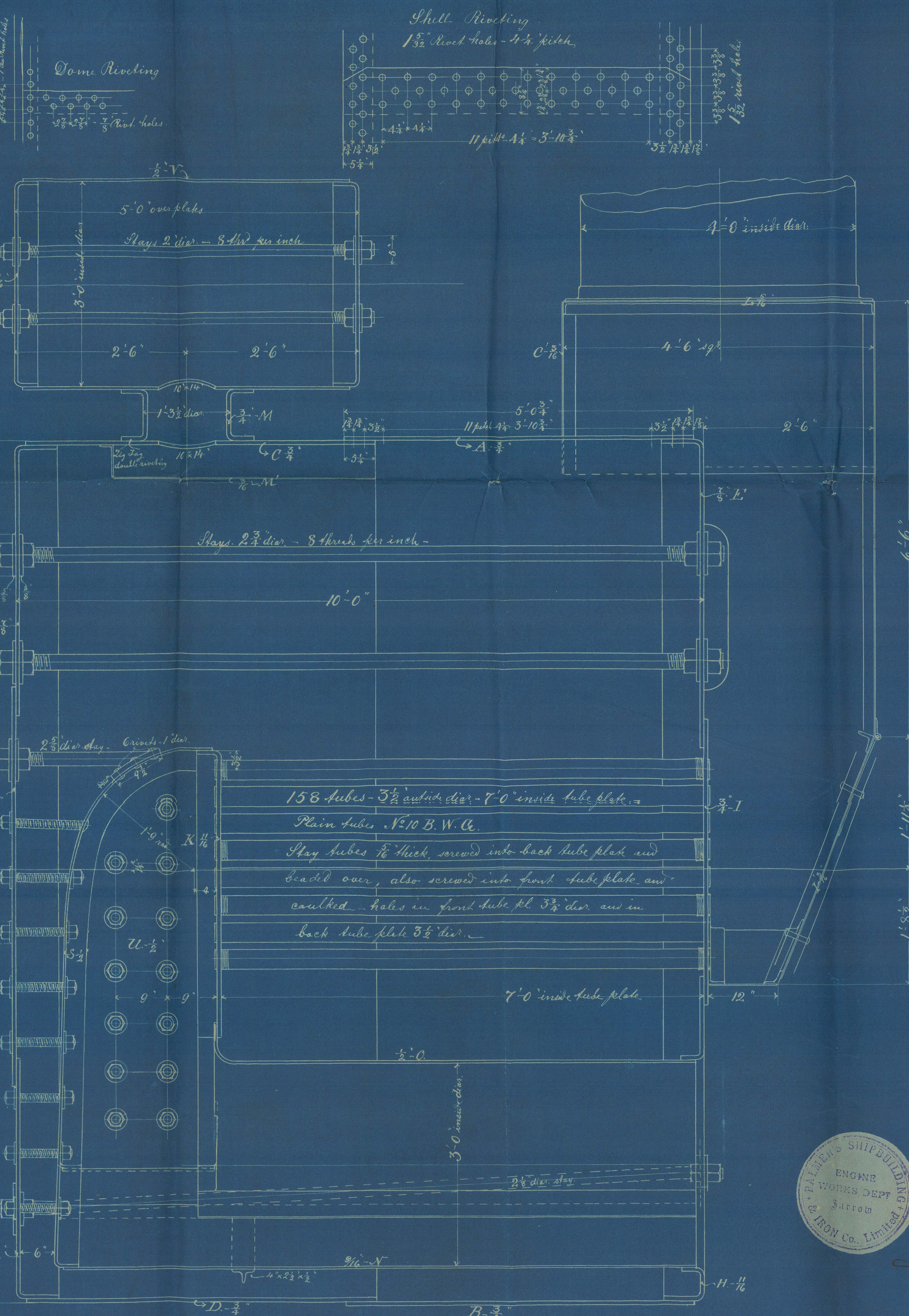
List of Steel Rivets									
Position	Size	Length	N <sup>o</sup>	Weight	Position	Size	Length	N <sup>o</sup>	Weight
Turnace butt strap inside	1/2"	3 3/4"	615	19	Boiler ends	1/2"	3 3/4"	350	2
Turnace butt strap outside	1/2"	3 3/4"	615	19	Turnace butt straps	3/8"	2 7/8"	500	2
Flange box	1/2"	3 3/4"	235	2	Comb. chamber edges	3/8"	2 7/8"	310	1
Boiler ends	1/2"	3 3/4"	350	2	Turnace ends	1/2"	3 3/4"	160	0
Turnace butt straps	3/8"	2 7/8"	500	2	Turnace longitudinal seams	1/2"	3 3/4"	130	0
Comb. chamber edges	3/8"	2 7/8"	310	1	Turnace longitudinal seams	1/2"	3 3/4"	45	0
Turnace ends	1/2"	3 3/4"	160	0	Turnace longitudinal seams	1/2"	3 3/4"	120	0
Turnace longitudinal seams	1/2"	3 3/4"	130	0	Turnace longitudinal seams	1/2"	3 3/4"	80	0
Turnace longitudinal seams	1/2"	3 3/4"	45	0	Turnace longitudinal seams	1/2"	3 3/4"	100	0
Turnace longitudinal seams	1/2"	3 3/4"	120	0					
Turnace longitudinal seams	1/2"	3 3/4"	80	0					
Turnace longitudinal seams	1/2"	3 3/4"	100	0					

Condition of Construction									
Shell longitudinal seams	double riveted lap joint	holes drilled in place after bending the plates & bolting the butt straps off, the holes slightly counterbored from the inside							
Circumferential seams	double riveted lap joint	holes drilled in outer course, before bending plates in inner course drilled in place after bending plates then taken apart and the butt taken off							
Constant used for Shell	- 230								
Long stays	- 120								
Screwed	- 120								
Stay tubes	- 120								
Per Gauge of straight at plate end	- 72.79%								
plates steel 98.52% - 23	73.05%								
plates	69.56%								
steel 83.15% - 23	61.35%								



Heating Surface for 1 Boiler									
Tubes	-	1013.5	49	ft.					
Turnace	-	101.5							
Comb. chamber	-	84.0							
Back tube plate	-	33.3							
Front	-	19.5							
Total	-	1252.0	49	ft.					
Gross Surface	-	10.5	49	ft.					
Tube Section	-	10.5	49	ft.					
Turnace	-	12.5							
Working Pressure	-	80	lb.						
Test	-	160							

**BOILER**  
INCH SCALE



ENGINES N<sup>o</sup> 441 526 6021

N<sup>o</sup> 6021



Examined and found correct  
John W. Smith



Palmer's Boiler

for  
526 barrels

S.S. "John Grafton"

NWC. Report No. 17294



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Lloyd's Register  
Foundation

NWC789-0031