

R. THOMPSON S.S. N° 243 **-BOILERS. N° 869-** 2 OFF.

WORKING PRESSURE 180 LBS PER SQ INCH TEST PRESSURE 300 LBS TO LLOYD'S REQUIREMENTS.
 ALL PLATES STAYS & RIVETS OF STEEL. IRON TUBES LAP WELDED.
 ALL HOLES TO BE DRILLED IN POSITION.

TENSILE STRENGTH OF SHELL PLATES AND BUTTSTRAPS TO BE NOT LESS THAN 28 TONS PER SQ INCH NOR MORE THAN 32 TONS PER SQ INCH.

| | | |
|--|-------------------------------------|-------------------------------|
| OTHER | 26 | 30 |
| LONGITUDINAL STAYS & GIRDERS | 28 | 32 |
| RIVETS & SCREW STAYS | 26 | 30 |
| ELONGATION OF SHELL PLATES, BUTTSTRAPS, GIRDERS & LONG STAYS | 20 PER CENT IN A LENGTH OF 8 INCHES | |
| OTHER | 23 | |
| SCREW STAYS | 23 | 3 TIMES THE DIA OF TEST PIECE |
| RIVETS | 25 | |

SCALE 1" = 1 FOOT.
 1" = 1'00"

| MARK N°OFF | LENGTH | BREADTH | THICK | POSITION | MARK N°OFF | THICK | POSITION | | | |
|------------|--------|------------|-----------|----------|----------------|-------|----------|--------|-------|--------------|
| A | 2 | 28'-0" | 9'-0" | 1 1/2 | SHELLS | U | 2 | 14'-0" | 1 1/2 | FRONT TOP |
| B | 2 | 15'-1 1/2 | 9'-0" | 1 1/2 | | | | | | |
| C | 4 | 9'-0" | 1'-6" | 5/16 | BUTTSTRAPS | | | | | |
| D | 4 | 8'-10 1/2 | 1'-6" | 5/16 | | | | | | |
| E | 2 | 3'-7" | 3'-2 1/2 | 5/16 | BACKTUBE PLATE | | | | | |
| G | 4 | 9'-0" | 4'-11" | 5/16 | | | | | | |
| H | 2 | 9'-6 1/2 | 4'-3 1/2 | 5/16 | CHAMBER BACK | Y | 2 | 14'-0" | 1 1/2 | FRONT BOTTOM |
| J | 4 | 7'-10 1/2 | 4'-11" | 5/16 | " | | | | | |
| K | 4 | 7'-2" | 2'-5" | 5/16 | " | | | | | |
| L | 4 | 7'-1" | 2'-5" | 5/16 | " | | | | | |
| M | 4 | 8'-1 1/2 | 2'-5" | 5/16 | " | | | | | |
| N | 4 | 1'-8 1/2 | 1'-8 1/2 | 5/16 | " | | | | | |
| O | 2 | 2'-8 3/4 | 1'-3 1/2 | 5/16 | " | | | | | |
| P | 2 | 6'-1 1/2 | 3'-5" | 5/16 | " | | | | | |
| Q | 4 | 5'-0 1/2 | 3'-5" | 5/16 | " | | | | | |
| R | 4 | 4'-10 | 0 3/4 | 5/16 | DOUBLING PLATE | W | 2 | 14'-0" | 1 1/2 | BACK TOP |
| S | 2 | 2'-0 1/2 | 1'-4 3/4 | 5/16 | GIRDERS | | | | | |
| T | 4 | 4'-2" | 1'-10 1/2 | 5/16 | " | | | | | |
| F | 6 | 10'-11 1/2 | 8'-3" | 5/16 | FURNACES | X | 2 | 14'-0" | 1 1/2 | BACK BOTTOM |

MAIN STAYS

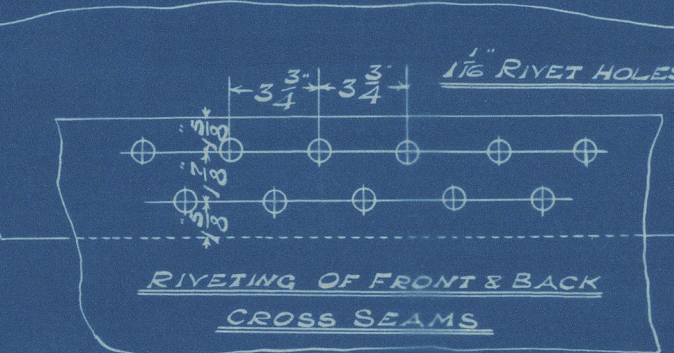
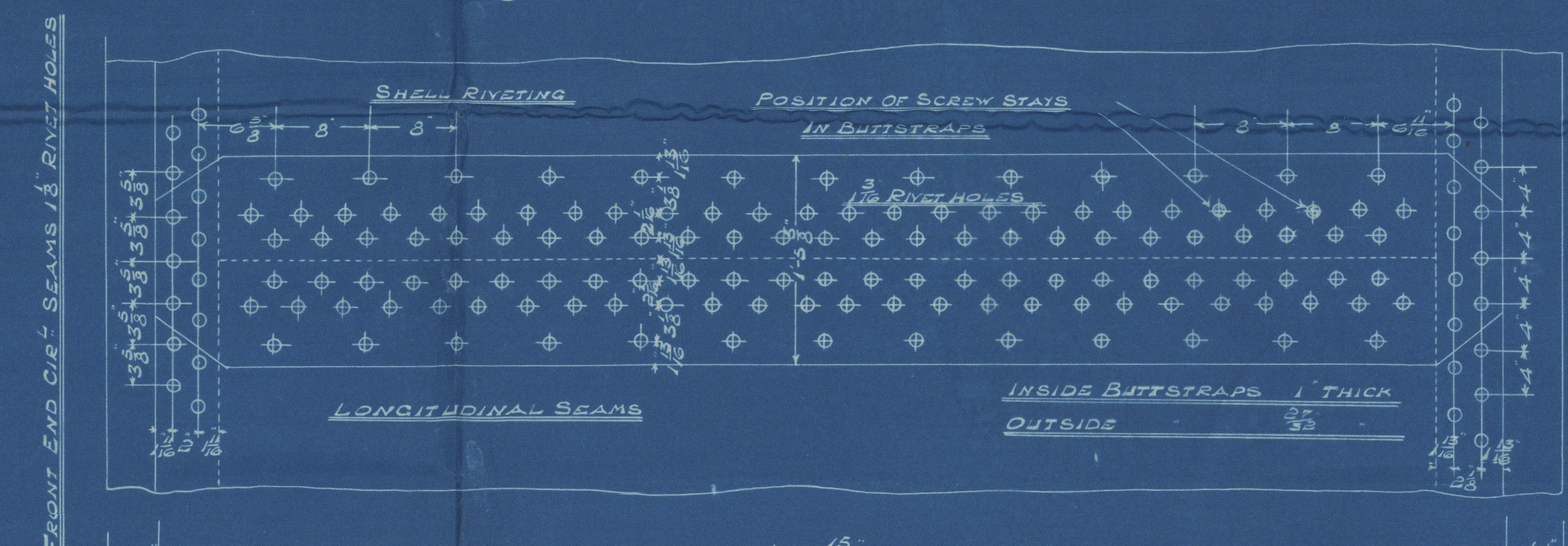
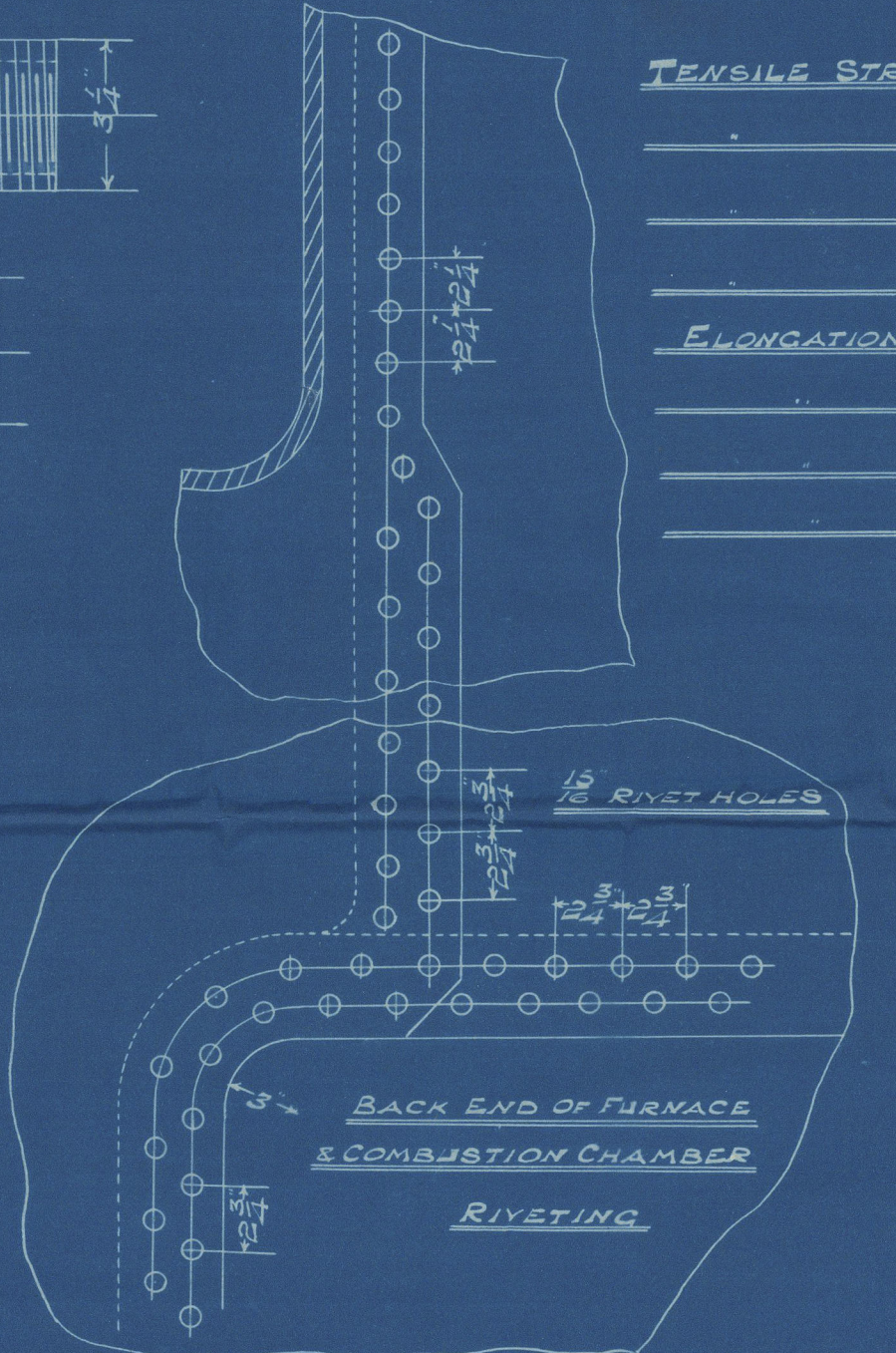
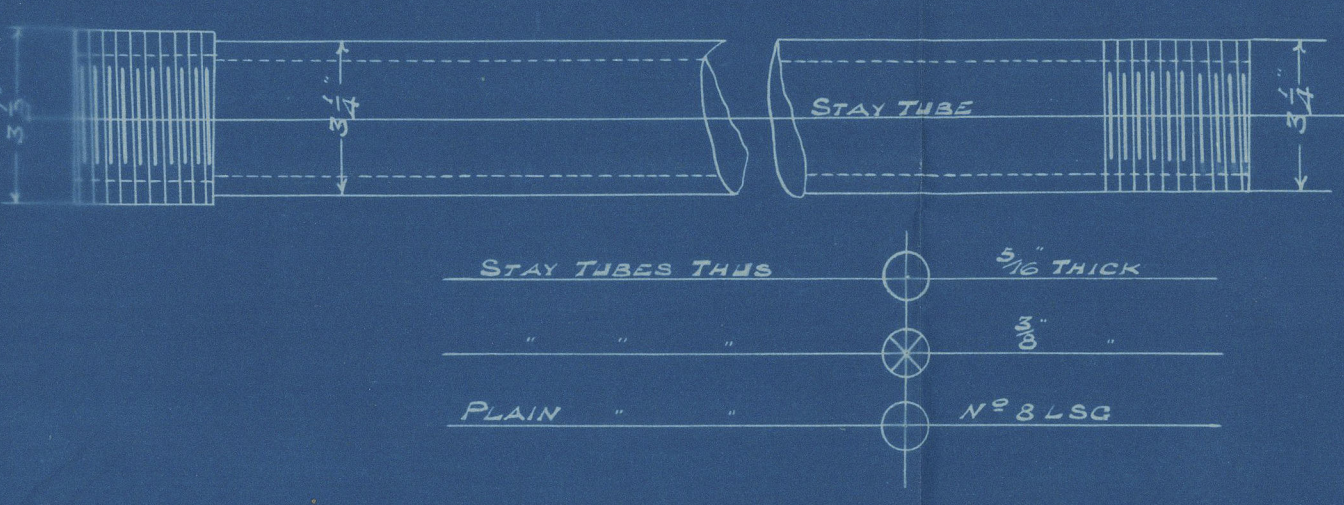
| | |
|---------|-------------------------|
| 16 BARS | 3 1/2 DIA X 11'-3" LONG |
| 4 | 3 1/2 " X 11'-3" |
| 4 | 2 3/4 " X 11'-0" |

SCREW STAYS

| | |
|---------|-------------------------|
| 52 BARS | 1 3/8 DIA X 12'-0" LONG |
| 11 | 1 3/8 " X 12'-0" |
| 1 | 2 3/8 " X 12'-0" |

320 PLAIN TUBES 7'-2 1/2 LONG 3 1/2 DIA SWELLED TO 3 3/8 DIA AT ONE END FOR 3' IN LENGTH N° 8 LSG THICK
 12 STAY 7'-2 1/2 3 1/2 3 3/8 3' 3/16 THICK
 128 7'-2 1/2 3 1/2 3 3/8 3' 3/16
 4 7'-2 1/2 3 1/2 3 3/8 3' 3/16 WITH
 NUT 3/4 DEEP ON SWELLED END. ALL STAY TUBES TO BE SCREWED AT EACH END FOR 3' IN LENGTH CONTINUOUS THREAD 9 THREADS PER INCH.

| | |
|--|----------------|
| HEATING SURFACE | 56 FT |
| SURFACE OF ONE TUBE - 5.991 sq ft | |
| 252 TUBES | 1380.6 |
| 5 FIRE BOXES | 138.9 |
| 3 FURNACES | 115.6 |
| BACK TUBE PLATE | 86.1 |
| FRONT | 50.1 |
| TOTAL IN ONE BOILER | 1746.2 |
| GRAND TOTAL | 3492.4 |
| TOTAL GRATE SURFACE (5.3 BARS) | 106.2 |
| AREA THROUGH TUBES | |
| RATIO AREA THROUGH TUBES GRATE SURFACE | |
| TOTAL STEAM SPACE TO 6' ABOVE TUBES | 703 CUBIC FEET |



MANHOLE AS SHOWN FOR STARBOARD BOILER & TO OPPOSITE HAND FOR PORT BOILER. HOLE 1'4" X 1'1".

SCREW STAYS 1 1/2 DIA 9 THREADS PER INCH 1 3/8 DIA AT BOTTOM OF THREAD. FITTED WITH NUTS ON INSIDE NEXT THE FIRE.

STAYS 3 1/2 DIA 6 THREADS PER INCH 3 3/8 DIA AT BOTTOM OF THREAD. 2 STAYS IN BOTTOM ROW 3 1/2 DIA 3 3/8 DIA AT BOTTOM OF THREAD.

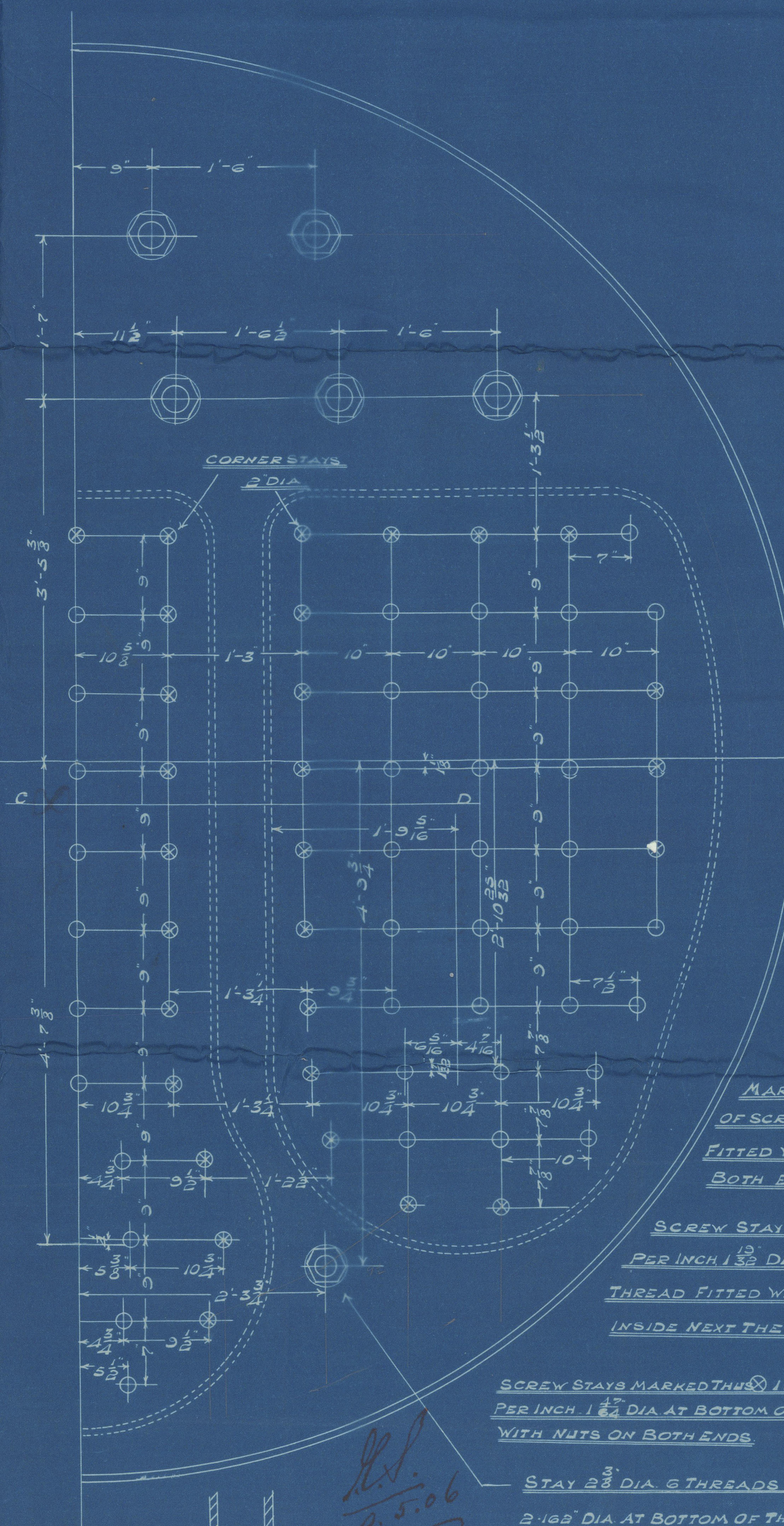
PLAIN TUBES 3 1/2 DIA SWELLED TO 3 3/8 DIA AT FRONT END N° 8 LSG THICK. STAY 3 1/2 X 11'-3" 3 3/8 X 3' THICK AND SCREWED INTO BOTH TUBE PLATES CONTINUOUS THREAD 9 THREADS PER INCH DIA AT BOTTOM OF THREAD (FRONT END 3 3/8 DIA) (BACK END 3 3/8 DIA).

7'-1 1/2 OVER TUBE PLATES. DOUBLING PLATE 1/2 THICK.

SCREW STAY 1 1/2 DIA 9 THREADS PER INCH 1 3/8 DIA AT BOTTOM OF THREAD. THREAD FITTED WITH NUTS ON BOTH ENDS.

DOUBLE RIVETTED 1/2 RIVET HOLES 2 1/2 PITCH.

LONGITUDINAL SEAM WELDED.

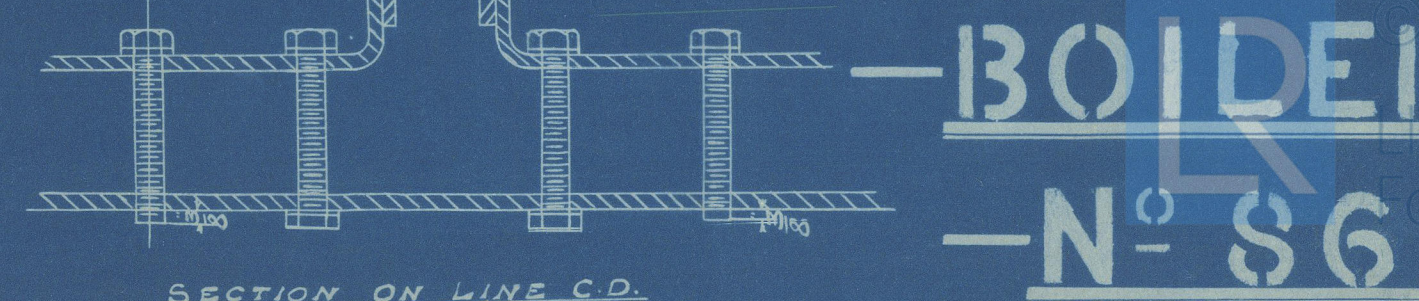


MARGINAL ROWS OF SCREW STAYS TO BE FITTED WITH NUTS ON BOTH ENDS.

SCREW STAYS 1 1/2 DIA 9 THREADS PER INCH 1 3/8 DIA AT BOTTOM OF THREAD FITTED WITH NUTS ON BOTH ENDS INSIDE NEXT THE FIRE.

SCREW STAYS MARKED THW 1 1/2 DIA 9 THREADS PER INCH 1 3/8 DIA AT BOTTOM OF THREAD FITTED WITH NUTS ON BOTH ENDS.

STAY 2 3/8 DIA 6 THREADS PER INCH 2 1/8 DIA AT BOTTOM OF THREAD.



-BOILER S- -N° 869-

SECTION ON LINE C-D.

SECTION THRO' MANHOLE

SECTION ON LINE A-B

13'-6 13/16 INSIDE DIA

10'-6"

869

G. CLARK & M. BOILERS.

180 LBS

205F

FOR

R. THOMPSON. N° 243.

S. S. "CEDARGROVE"

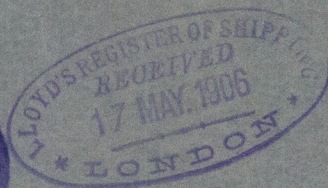
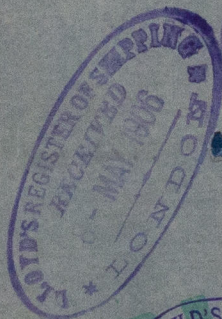
Ald. J. E. No. 22948

LLOYDS TEST

N° 2513.

360 LBS.

18.8.06 H. J. S.



W438-0070

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Foundation